



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Crash Data Researchers/Users:

Thank you for choosing crash data from the National Highway Traffic Safety Administration (NHTSA) for your research or other use. The information contained in this motor vehicle crash report is collected, maintained and distributed in accordance with Public Law 89-564. In accordance with this Public Law, NHTSA is required not to release any case information until completion of quality control procedures. These procedures include a review of the case material to extract all names, licenses and registration numbers, non-coded interview material, non-research related researcher comments in the margins, non-factual data, and the production number portion of the vehicle identification number (VIN).

If you requested NHTSA to query its database files in order to identify a specific crash, then that query was made using non-personal descriptors you provided for use in our search. This motor vehicle crash may have been identified from a data search and matches the general, non-personal descriptors you provided, but we cannot confirm that this is the specific crash report you requested.

If you have any questions with regard to the above procedures, please contact the Field Operations Branch, Crash Investigation Division, National Center for Statistics and Analysis at 202-366-4820. Again, please be advised that we cannot confirm that this is the case that you have specifically requested nor can we certify the information to be correct.

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AUTO SAFETY HOTLINE
(800) 424-9393
Wash. D.C. Area 368-0123

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

DC 9008

DYNAMIC SCIENCE, INC.
Contract No. D1NH22-88-C-07015

AIRBAG INVESTIGATION
Case Number AB00890

~~XXXXXX~~-90

The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the National Highway Traffic Safety Administration.

TECHNICAL SUMMARY

CONTRACTOR: Dynamic Science, Inc.
 CONTRACT NUMBER: DINH 22-87-C-47169
 CASE NUMBER: DSI-90-AB008

This was a 3 vehicle collision which occurred on a clear, summer, weekday morning. V1 was a 1990 Ford LTD, Crown Victoria, 4 door, Police cruiser with one 35 year old male driver. He was reportedly using the available manual lap and shoulder belt. V1 was equipped with a steering hub mounted air cushion restraint system. V2 was a 1987 Cadillac Fleetwood, 4 door sedan with a 39 year old female driver, and a 43 year old female right front seat passenger. The right front seat passenger was not using the available manual lap and shoulder belt. The driver reportedly was. No physical evidence was found to substantiate seatbelt usage in either vehicle. The third vehicle did not stop after the crash and the vehicle was not identified.

The roadway is a rural, Maryland, state highway which has 2 westbound travel lanes (each 12 feet wide), and 2 westbound exit lanes (each about 12 feet wide). In the area of the collision, the travel lanes and exit lanes are separated by a tapered gore area. Near the point of impact, the gore area ends and the 2 westbound movements are separated by a grass median. The posted speed limit is 55 miles per hour. At the time of the collision, the roadway was dry. The asphalt surface was in good condition, and had an estimated coefficient of friction of 0.75.

V2 was westbound in the inside westbound travel lane and was traveling at an estimated speed of between 50 and 55 miles per hour. V1 was eastbound on the north westbound shoulder and was traveling at an estimated speed of between 40 and 44 miles per hour. V1 reportedly had its roof mounted emergency lights and siren activated, and was in pursuit of a crime suspect in the nearby woods. The unidentified third vehicle was westbound in the outside westbound travel lane. V2 sustained minor sideswipe contact as the third vehicle attempted to cross from the outside westbound lane into the inside westbound lane. The driver of V2 made a full brake application and steered V2 to the right in an effort to avoid the third vehicle. V2 had skidded in the gore area approximately 95 feet, was facing about 10 degrees to the north of due west, and was traveling at an estimated speed of between 25 and 30 miles per hour immediately prior to impact with V1. V1 had skidded approximately 44 feet while being steered to the left, was facing about 19 degrees to the north of due east, and was traveling at an estimated speed of between 22 and 27 miles per hour immediately prior to impact.

The right side of V2's front bumper impacted the right side of V1's front bumper. Maximum longitudinal crush to V1's right front bumper corner was measured to be 13.6 inches. The principal force was from the 2 o'clock direction. V1's estimated speed change at impact was between 16 and 20 miles per hour, and the CDC was recorded as 02FREE2. The windshield (AS1) was in place and cracked by impact forces as well as by the driver's left arm and head. The driver's head also dislodged the rear-view mirror. He sustained a laceration to the right forehead (AIS-1), and a contusion to the left wrist (AIS-1) from contact to the windshield and mirror. A Police radio was mounted below the center instrument panel and abrasions were noted to its left side. The driver sustained superficial right thigh abrasions (AIS-1) from contact to the radio. The right front instrument panel intruded longitudinally 2.9 inches, and the right side panel forward of the "A" pillar intruded laterally 2.2 inches. These intruded components were not occupant contact sources. At impact, the steering hub mounted airbag deployed as designed. The vehicle inspection revealed that the sensor located at the right front fender sustained direct contact damage during the impact. The wiring harness leading to the sensor was damaged. The sensors located at the center of the front grill and at the left front fender were not directly damaged, but the center grille sensor was slightly displaced due to the induced damage across V1's front.

Maximum longitudinal crush to V2's right front bumper corner was measured to be 22.8 inches. The principal force was from the 1 o'clock direction. V2's estimated speed change at impact was between 18 and 22 miles per hour, and the Collision Deformation Classification (CDC) was recorded as 01FDEW3. The windshield was in place and cracked by impact forces. The right front side glazing was disintegrated by impact forces. The right front door was modified by rescue personnel.

The steering rim was deformed and abraded, and there was broken plastic and a fabric transfer at the lower left instrument panel. The driver reportedly sustained non-incapacitating injuries. The right front seat passenger sustained a left, frontal brain contusion (AIS-3), a left, frontal, intra-cerebral hematoma (AIS-4), a left, frontal, sub-arachnoid hemorrhage (AIS-3), and a laceration to the right orbit (AIS-1) from contact to the right instrument panel. The upper right instrument panel was deformed and abraded, and makeup was deposited there. The glovebox door was abraded and there were abrasions, fabric transfers, and makeup deposits to the lower right instrument panel. This indicates that the right front seat passenger may have come to rest on the right front floor pan. The right front "A" pillar, instrument panel, and toe pan intruded longitudinally 3.2, 5.1, and 3.8 inches respectively. The right side panel forward of the "A" pillar intruded laterally 2.4 inches.

At impact, V2 rotated clockwise and skidded about 12 feet to final rest. At final rest, V2 was facing 21 degrees to the east of due north. V2's driver was eventually transported by ground ambulance to a hospital for treatment. The right front seat passenger was transported approximately 11 miles by helicopter to a trauma hospital for treatment.

V1 was deflected to the north about 12.5 feet, rotated slightly counterclockwise, and impacted and broke a 3.5 inch diameter wooden sign post before coming to rest facing 47 degrees to the east of due north. V1's driver was eventually transported approximately 11 miles by helicopter to a [REDACTED] for treatment.

Both V1 and V2 were towed from the scene and were not repairable.

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Dynamic Science, Inc.
In-Depth Investigation
Case No. DSI-AB00890

Identification:

Location:	
Area/Type:	Rural
Date/Time:	Weekday / Morning
Accident Type:	Side Swipe and Frontal
Injury Severity (airbag vehicle):	AIS-1

Ambience:

Viewing Conditions:	Daylight, clear
Cloud Cover:	None
Precipitation:	None
Road Surface:	Dry

Roadway:

	<u>Vehicle 1</u>	<u>Vehicle 2</u>	<u>Vehicle 3</u>
Type:	2 lane highway one-way	2 lane highway one-way	2 lane highway one-way
Width:	*24 feet	*24 feet	*24 feet
Traffic Density:	Moderate	Moderate	Moderate
Median:	Gore tapers up to grass median	Gore tapers up to grass median	Gore tapers up to grass median
Edge:	Paved shoulder	Paved shoulder	Paved shoulder
Surface:	Bituminous	Bituminous	Bituminous
Coefficient of Friction: (estimate)	.75	.75	.75
Radius of Curvature:	Straight road	Straight road	Straight road
Vertical Slope:	Level	Level	Level
Superelevation Slope:	Level	Level	Level

* Does not include the two 12 foot wide exit lanes.

Traffic Controls:

	Vehicle 1	Vehicle 2	Vehicle 3
Signals:	None	None	None
Signs:	Exit sign	Exit sign	Exit sign
Speed Limit:	55 MPH	55 MPH	55 MPH
Markings:	Solid yellow line at south road edge. Solid white line at north road edge. Intermittant white line between lanes.	Solid yellow line at south road edge. Solid white line at north road edge. Intermittant white line between lanes.	Solid yellow line at south road edge. Solid white line at north road edge. Intermittant white line between lanes.

DSI-AB00890

Vehicles:

	<u>Vehicle 1</u>	<u>Vehicle 2</u>	<u>Vehicle 3</u>
Description:	1990 Ford LTD, Crown Victoria, 4 door sedan	1987 Cadillac Fleetwood, 4 door sedan	Unknown (hit and run)
Odometer:	2,869	Digital-no power	Unknown
Engine:	V8 5.8 Liter	V8 4.1 Liter	Unknown
Active Restraints:	L/S belts in front and rear	L/S belts in front, lap belts in rear	Unknown
Passive Restraints:	Driver's airbag	None	Unknown
Reported Defects:	None	None	Unknown
Cargo:	50 pounds	None	Unknown

Vehicle Damage:

	<u>Vehicle 1</u>	<u>Vehicle 2</u>	<u>Vehicle 3</u>
Exterior:	Right front bumper, fender, and wheel, left rear door	Front bumper, right front fender/wheel, left front door	Possible right front bumper corner
CDC:	02FREE2	01FDEW3	9999999
Damage Estimates:	Totaled	Totaled	Unknown
Interior Damage:	Intrusion to right instrument panel and side panel 2.9 inches	Intrusion to right instrument panel, side panel, "A" pillar, and toe pan 5.1 inches	Unknown

Collision Sequence:

Pre - Crash: V2 was westbound in the inside westbound travel lane and was traveling at an estimated speed of between 50 and 55 miles per hour. V1 was eastbound on the north westbound shoulder and was traveling at an estimated speed of between 40 and 44 miles per hour. The unidentified third vehicle was westbound in the outside westbound travel lane. V2 sustained minor sideswipe contact as the third vehicle attempted to cross from the outside westbound lane into the inside westbound lane. The driver of V2 made a full brake application and steered V2 to the right in an effort to avoid the third vehicle. V2 skidded in the gore area about 95 feet prior to impact with V1. V1 skidded approximately 44 feet prior to impact.

Crash: The right side of V2's front bumper impacted the right side of V1's front bumper. Maximum longitudinal crush to V1's right front bumper corner was measured to be 13.6 inches. The principal force was from the 2 o'clock direction. V1's estimated speed change at impact was between 16 and 20 miles per hour, and the Collision Deformation Classification (CDC) was recorded as 02FREE2. Maximum longitudinal crush to V2's right front bumper corner was measured to be 22.8 inches. The principal force was from the 1 o'clock direction. V2's estimated speed change at impact was between 18 and 22 miles per hour, and the CDC was recorded as 01FDEW3.

Post - Crash: V2 rotated clockwise and skidded about 12 feet to final rest. At final rest, V2 was facing 21 degrees to the east of due north. V1 was deflected to the north about 12.5 feet, rotated slightly counterclockwise, and impacted and broke a 3.5 inch diameter wooden sign post before coming to rest facing 47 degrees to the east of due north.

Scene Clearance: V1's driver and V2's right front seat passenger were eventually transported approximately 11 miles by helicopter to a trauma hospital for treatment. V2's driver was transported by ground ambulance to a nearby hospital for treatment. Both vehicles were towed from the scene with disabling damage.

Vehicle Damage: V1 sustained direct contact damage to the right 8.5 inches of the front bumper and to the right front fender and wheel from impact with V2. There was induced damage across V1's front and right front door, and the roof was buckled at the right "B" pillar. V2 sustained direct contact damage to the right two thirds of the front bumper and grille, and to the right front fender and wheel. There was induced damage and buckling to the right "A" pillar and to the roof.

Driver and Other Occupants:

	<u>Vehicle 1</u>	<u>Vehicle 2</u>	<u>Vehicle 2</u>
Age/Sex:	35 years/male	39 years/female	43 years/female
Seated Position:	Left front	Left front	Right front
Height:	70 inches	Unknown	65 inches
Weight:	175 pounds	Unknown	132 pounds
Occupation:	Police officer	Real estate	Real estate
Physical State:	Normal	Normal	Normal
Body Posture:	Normal	Normal	Normal
Active Restraint Use:	L/S belt	L/S belt	None
Other Occupants:	None	Right front	Driver

NOTE: No information was available on V3's occupant(s).

Injuries:

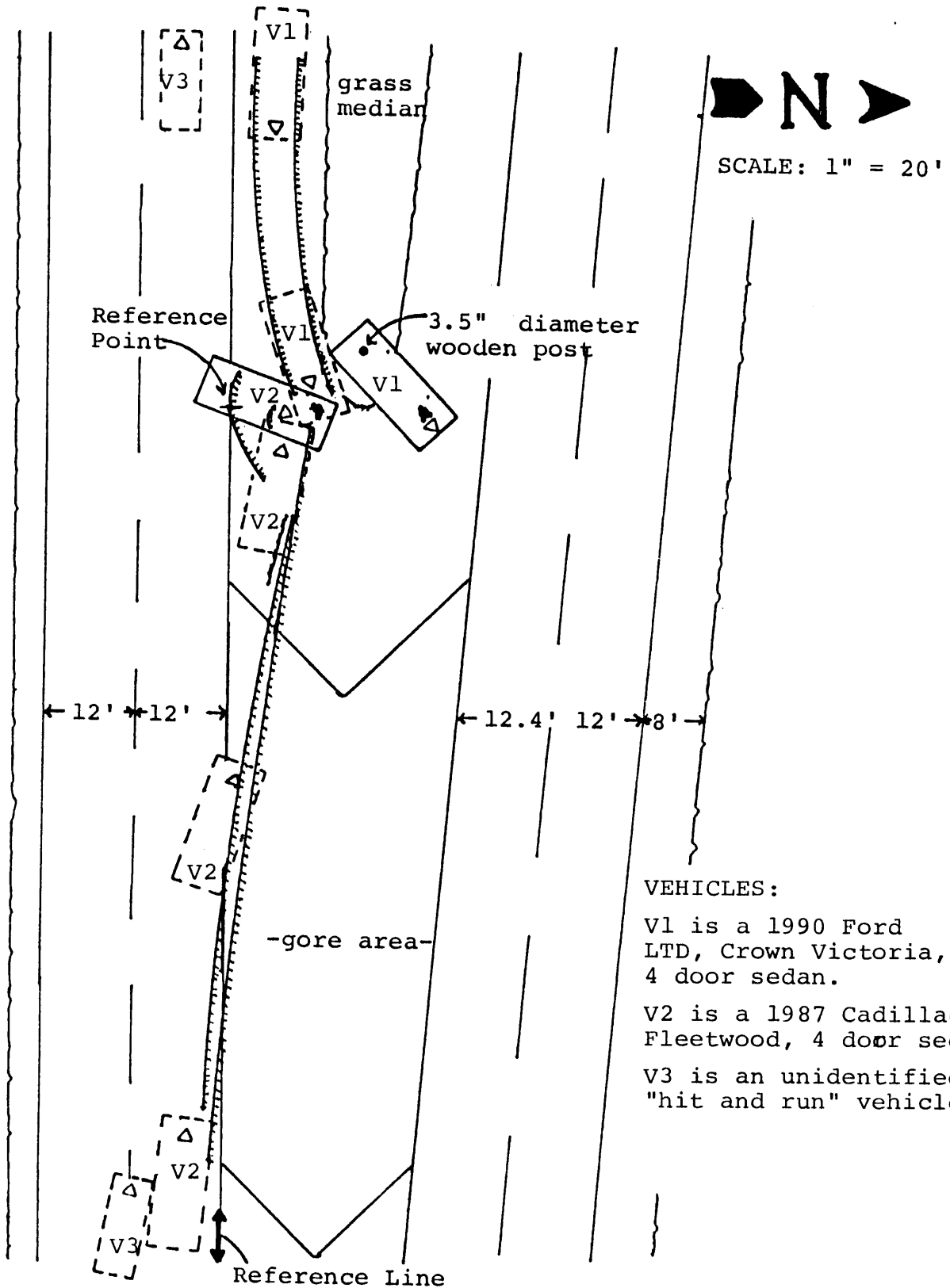
	<u>Injury</u>	<u>OIC Code</u>	<u>Source</u>
V1 DRIVER:	Laceration, Right Forehead 1 cm long, w/tissue loss	FSLI-1	Windshield
	Superficial Abrasions, Right Thigh	TRAI-1	Police radio
	Contusion, Left Wrist w/ecchymosis	WLCI-1	Windshield
V2 DRIVER:	UNABLE TO OBTAIN INJURY DATA DUE TO PENDING LITIGATION.		
V2 RIGHT FRONT PASSENGER:	Left, Frontal Brain Contusion	HACB-3	Right instrument panel
	Left, Frontal, Intra-Cerebral Hematoma	HAUB-4	Right instrument panel
	Left, Frontal, Sub-Arachnoid Hemorrhage	HAUB-3	Right instrument panel
	Laceration, Right Orbit	FSLI-1	Right instrument panel

SELECTED POLICE PHOTOGRAPH, CASE AB00890



Scene facing west (V2 direction of travel). The photograph shows both V1 and V2 at final rest.

COLLISION SCHEMATIC, CASE AB00890



COLLISION MEASUREMENTS
Case Number AB00890

Reference Point: Apex of grass median.

Reference Line: North edge of westbound lanes.

DATA POINT	LONGITUDINALS	LATERALS
BRF V1	46.9 W	3.1 N
BLF V1	46.9 W	8.3 N
IP RF V1	12 W	5.2 N
IP LF V1	12 W	10.3 N
4x4 post impact	7.9 W	17.3 N
FRP LR V1	7.9 W	20.6 N
FRP LR V2 and ELR skid V2	4.5 W	1.1 N
IP LF V1	2.7 W	22.8 N
ERF V1	1.8 W	8.5 N
FRP LF V2	1.8 W	10.1 N
DP LF V1	1.8 W	14.2 N
FRP LF V1	1.8 W	25.9 N
BLR V2	0	0
FRP RR V2	0	0
End LF V2	0	5.7 N
RP	0	16.5 N
Spill V1	0	25.2 N
Spill V2	0	11.3 N
BLF V2	2.4 E	5.1 N
ERF V2	2.4 E	10 N
BRR V2	9 E	4.3 N
End Possible skid	14.2 E	7.3 N

DATA POINT	LONGITUDINALS	LATERALS
End RR V2	14.2 E	8.2 N
Begin possible skid	23.4 E	5.1 N
IP RR V2	30 E	5 N
IP RF V2	30 E	5.8 N
Begin RR V2	94 E	2.4 S
Begin RF V2	100.9 E	1.8 S
<p>Gore width at 100.9 east = 24.9 feet.</p> <p>Median width at 6.9 west = 9.6 feet.</p> <p>Median width at 46.9 feet west = 13.6 feet</p>		

east --->	LANE WIDTHS	<--- west
8 feet		north shoulder
12 feet		--->
12.4 feet		--->
37.2 feet at 46.9 west	--median/gore--	24.9 feet at 100.9 east
12 feet		<---
12 feet		<---

APPENDIXES



U.S. Department of Transportation
National Highway Traffic Safety
Administration

ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number --

AB00890

IDENTIFICATION

3. Number of General Vehicle
Forms Submitted

03

4. Date of Accident

Weekday - Summer

5. Time of Accident

Morning

SPECIAL STUDIES INDICATORS

NUMBER OF EVENTS

11. Number of Recorded Events
in This Accident

03

Code the number of events which occurred in
this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right.

Accident Event Sequence Number	Vehicle Number	Class of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class of Vehicle	General Area of Damage
12. <u>0 1</u>	13. <u>02</u>	14. <u>04</u>	15. <u>L</u>	16. <u>03</u>	17. <u>99</u>	18. <u>9</u>
19. <u>0 2</u>	20. <u>02</u>	21. <u>04</u>	22. <u>F</u>	23. <u>01</u>	24. <u>04</u>	25. <u>F</u>
26. <u>0 3</u>	27. <u>01</u>	28. <u>04</u>	29. <u>L</u>	30. <u>50</u>	31. <u>00</u>	32. <u>0</u>
33. <u>0 4</u>	34. _____	35. _____	36. _____	37. _____	38. _____	39. _____
40. <u>0 5</u>	41. _____	42. _____	43. _____	44. _____	45. _____	46. _____

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENTS SUPPLEMENT

CODES FOR CLASS OF VEHICLE

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase - 100 ")
- (02) Compact (wheelbase - 100 " - 104 ")
- (03) Intermediate (wheelbase - 105 " - 109 ")
- (04) Full size (wheelbase - 110 " - 114 ")
- (05) Largest (wheelbase - 115 ")
- (09) Unknown passenger car size
- (11) Short utility vehicle
- (12) Truck based utility (- 10,000 lbs GVWR)
- (13) Passenger van (- 10,000 lbs GVWR)
- (14) Other van (- 10,000 lbs GVWR)
- (15) Pickup truck (- 10,000 lbs GVWR)
- (18) Other truck (- 10,000 lbs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (- 10,000 lbs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

CODES FOR GENERAL AREA OF DAMAGE (GAD)

CDC APPLICABLE AND OTHER VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back
- (T) Top
- (U) Undercarriage
- (9) Unknown

TDC APPLICABLE VEHICLES

- (0) Not a motor vehicle
- (N) Noncollision
- (F) Front
- (R) Right side
- (L) Left side
- (B) Back of unit with cargo area (rear of trailer or straight truck)
- (D) Back (rear of tractor)
- (C) Rear of cab
- (V) Front of cargo area
- (T) Top
- (U) Undercarriage
- (9) Unknown

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) - Vehicle number

Noncollision

- (31) Overturn - rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify):

(35) Noncollision injury

(38) Other noncollision (specify):

(39) Noncollision - details unknown

Collision with Fixed Object

- (41) Tree (- 4 inches in diameter)
- (42) Tree (- 4 inches in diameter)
- (43) Shrubbery or bush
- (44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (- 4 inches in diameter)
- (51) Pole or post (- 4 but - 12 inches in diameter)
- (52) Pole or post (- 12 inches in diameter)
- (53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (specify):

(57) Fence

(58) Wall

(59) Building

(60) Ditch or culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify):

(69) Unknown fixed object

Collision with Nonfixed Object

(71) Motor vehicle not in-transport

(72) Pedestrian

(73) Cyclist or cycle

(74) Other nonmotorist or conveyance (specify):

(75) Vehicle occupant

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object



U.S. Department of Transportation
National Highway Traffic Safety
Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number

AB 00890

Vehicle Number

01

VEHICLE IDENTIFICATION

4. Vehicle Model Year

Code the last two digits of the model year
(99) Unknown

90

5. Vehicle Make (specify):

Ford

Applicable codes are found in your
NASS CDS Data Collection, Coding, and
Editing Manual.
(99) Unknown

12

6. Vehicle Model (specify):

LTD Crown Victoria

Applicable codes are found in your
NASS CDS Data Collection, Coding, and
Editing Manual.
(99) Unknown

016

7. Body Type

Note: Applicable codes are found on
the back of this page.

04

8. Vehicle Identification Number

2FACP7262LX

Left justify: Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nine's

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition

(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

1

10. Police Reported Travel Speed

Code to the nearest mph (NOTE: 00 means
less than 0.5 mph)
(97) 96.5 mph and above
(99) Unknown

99

11. Police Reported Alcohol or Drug Presence

(0) Neither alcohol nor drugs present
(1) Yes (alcohol present)
(2) Yes (drugs present)
(3) Yes (alcohol and drugs present)
(4) Yes (alcohol or drugs present—specifics
unknown)
(7) Not reported
(8) No driver present
(9) Unknown

0

12. Alcohol Test Result for Driver

Code actual value (decimal implied before
first digit—0.xx)
(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

96

Source

PAR

ACCIDENT RELATED

13. Speed Limit

(00) No statutory limit
Code posted or statutory speed limit
(99) Unknown

55

14. Attempted Avoidance Maneuver

(00) No impact
(01) No avoidance actions
(02) Braking (no lockup)
(03) Braking (lockup)
(04) Braking (lockup unknown)
(05) Releasing brakes
(06) Steering left
(07) Steering right
(08) Braking and steering left
(09) Braking and steering right
(10) Accelerating
(11) Accelerating and steering left
(12) Accelerating and steering right
(97) No driver present
(98) Other action (specify):

(99) Unknown

08

15. Accident Type

Applicable codes may be found on the back
of page two of this field form

(00) No impact
Code the number of the diagram that
best describes the accident circumstance
(98) Other accident type (specify):

(99) Unknown

51

**** STOP HERE IF GV07 DOES NOT EQUAL 01-49 ****

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (08) Other automobile type (specify): _____

- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, and Brat)
- (11) Auto based panel (cargo station wagon, includes auto based ambulance/hearse)
- (12) Large limousine—more than four side doors or stretched chassis

Utility Vehicles

- (13) Short utility—not truck based (includes Jeep CJ-5, Jeep CJ-7, Renegade, Landrover, Pre-78 Bronco, Landcruiser, Thing)
- (14) Truck based utility (2-door; includes Blazer, Bronco—78 on, Bronco II, Jimmy, Ramcharger, Cherokee, Trailduster, Scout)

Van Based Light Trucks ($\leq 10,000$ lbs GVWR)

- (20) Minivan (Lumina APV, Astro, Caravan, Plymouth Vista, Aerostar, Safari, Voyager [84 and after], Dodge Vista, Mini Ram Van, Toyota Cargo Van, Toyota Van, Vanagon, VW Bus, Kombi)
- (21) Standard van (Sportvan, Chevy Van, Club Wagon, Ford Econoline, Ram Van, Chateau, Ram Wagon, Vandura, Rally, Voyager [83 and before], Beauville, Sportsman)
- (28) Other van type (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup Style Cab, 10,000 lbs GVWR)

- (30) Compact pickup (<4,500 lbs. GVWR, S-10, LUV, Ram 50, Rampage, Courier, Ranger, S-15 Pup, Mazda Pickup, Mitsubishi Truck, Nissan Pickup, Arrow Pickup, Scamp, Toyota Pickup, VW Pickup)
- (31) Standard pickup (4,500 to 10,000 lbs. GVWR, C10 - C30, K10 - K30, T10, D100 - D350, W150 - W350, F100 - F350, Comanche, J10 - J30, Dakota)
- (32) Pickup with slide-in camper
- (33) Truck based station wagon (4-door; includes Suburban, Travelall, Wagoneer)
- (34) Light truck based suburban limousine
- (35) Convertible pickup
- (39) Unknown (pickup style) light conventional truck type

Other Light Trucks ($\leq 10,000$ lbs GVWR)

- (40) Cab chassis based (includes rescue vehicle, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (47) Other light conventional truck type (not a pickup) (specify): _____

- (48) Unknown other light truck type (not a pickup)
- (49) Unknown light vehicle type (automobile, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____

- (59) Unknown bus type

Medium/Heavy Trucks ($>10,000$ lbs GVWR)

- (60) Step van
- (61) Single unit straight truck (10,000 lbs \leq GVWR $\leq 26,000$ lbs)
- (62) Single unit straight truck ($>26,000$ lbs GVWR)
- (63) Medium/heavy truck based motorhome
- (64) Truck-tractor with no cargo trailer
- (65) Truck-tractor pulling one trailer
- (66) Truck-tractor pulling two or more trailers
- (67) Truck-tractor (unknown if pulling trailer)
- (68) Unknown medium/heavy truck type
- (69) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

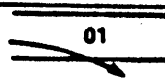
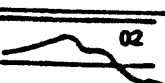

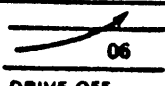
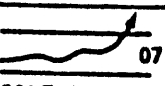
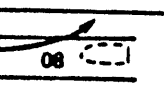
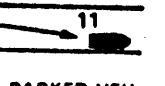
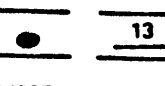
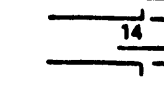

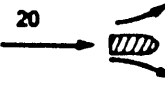
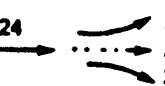
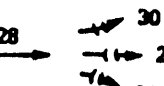
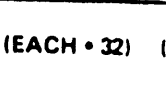
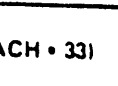
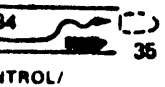
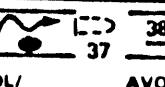
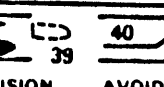
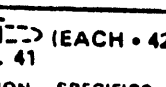
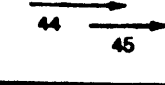
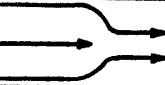

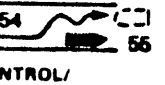
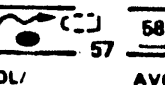
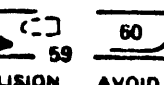





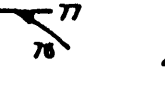

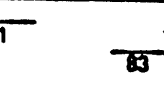
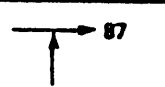
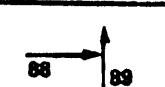
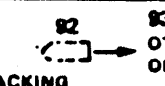
- (70) Motorcycle
- (71) Moped (motorized bicycle)
- (78) Other motored cycle type (minibike, motorscooter) (specify): _____

- (79) Unknown motored cycle type

Other Vehicles

- (80) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (88) Other vehicle type (specify): _____

- (99) Unknown body type

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 24, 25, 26, 27	 26 DECEL. 28, 29, 30, 31	 30 SPECIFICS OTHER	 31 SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH • 42) (EACH • 43) SPECIFICS OTHER SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 SPECIFICS OTHER	 46 SPECIFICS UNKNOWN	(EACH • 48) (EACH • 49) SPECIFICS OTHER SPECIFICS UNKNOWN		
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH • 62) (EACH • 63) SPECIFICS OTHER SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 73 72	(EACH • 74) (EACH • 75) SPECIFICS OTHER SPECIFICS UNKNOWN	
	K Turn Into Path	 77 78 TURN INTO SAME DIRECTION	 79 78 TURN INTO OPPOSITE DIRECTIONS	 81 80 82	(EACH • 84) (EACH • 85) SPECIFICS OTHER SPECIFICS UNKNOWN	
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 86 87	 88 89	(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI Miscellaneous	M. Backing Etc.	 92 BACKING VEH.	93 OTHER VEH. OR OBJECT	96 Other Accident Type 99 Unknown Accident Type 00 No Impact		

National Accident Sampling System - Crashworthiness Data System: General Vehicle Form

Page 2

OCCUPANT RELATED

16. Driver Presence in Vehicle

- (0) Driver not present
(1) Driver present
(9) Unknown

+

17. Number of Occupants This Vehicle

- (00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

01

18. Number of Occupant Forms Submitted

01

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight

3821 Code weight to nearest 100 pounds.

- (010) Less than 1050 pounds
(135) 13,500 lbs or more
(999) Unknown

03800

Source:

20. Vehicle Cargo Weight

50 Code weight to nearest 100 pounds.

- (00) Less than 50 pounds
(97) 9,650 lbs or more
(99) Unknown

0100

RECONSTRUCTION DATA

21. Towed Trailing Unit

- (0) No towed unit
(1) Yes - towed trailing unit
(9) Unknown

0

22. Documentation of Trajectory Data for This Vehicle

- (0) No
(1) Yes

1

23. Post Collision Condition of Tree or Pole (for Highest Delta V)

- (0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

0

(9) Unknown

24. Rollover

- (0) No rollover (no overturning)

0

Rollover (primarily about the longitudinal axis)

- (1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify):

- (5) Rollover - end-over-end (i.e., primarily about the lateral axis)

- (9) Rollover (overturn), details unknown

OVERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this vehicle)

0

26. Rear Override/Underride (this vehicle)

0

- (0) No override/underride, or not an end-to-end impact

Override (see specific CDC)

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underride (see specific CDC)

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

- (7) Medium/heavy truck override
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle for This Vehicle

071

28. Heading Angle for Other Vehicle

280

National Accident Sampling System - Crashworthiness Data System: General Vehicle Form

Page 3

29. Basis for Total Delta V (Highest)

2

Delta V Calculated

- (1) CRASH program - damage only routine
- (2) CRASH program - damage and trajectory routine
- (3) Missing vehicle algorithm

Delta V Not Calculated

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction techniques, regardless of adequacy of damage data.
- (6) All vehicles and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

Secondary Highest

30. Total Delta V

18

____ Nearest mph ____

(NOTE: 00 means less than
-0.5 mph)
(97) 96.5 mph and above
(99) Unknown

31. Longitudinal Component of Delta V

+ 13

____ Nearest mph ____

(NOTE: 00 means greater than
-0.5 and less than +0.5 mph)
(± 97) ± 96.5 mph and above
(99) Unknown

Secondary Highest

32. Lateral Component of Delta V

+ 13

____ Nearest mph ____

(NOTE: 00 means greater than
-0.5 and less than +0.5 mph)
(± 97) ± 96.5 mph and above
(99) Unknown

33. Energy Absorption

035900358875 Nearest 100 foot-lbs ____

(NOTE: 0000 means less than 50 Foot-Lbs)
(9997) 999,650 foot-lbs or more
(9999) Unknown

34. Confidence in Reconstruction Program Results (for Highest Delta V)

1

- (0) No reconstruction
- (1) Collision fits model - results appear reasonable
- (2) Collision fits model - results appear high
- (3) Collision fits model - results appear low
- (4) Borderline reconstruction - results appear reasonable

35. Type of Vehicle Inspection

1

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify):

36. Is this an AOPS Vehicle?

- (0) No
- (1) Yes

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM**

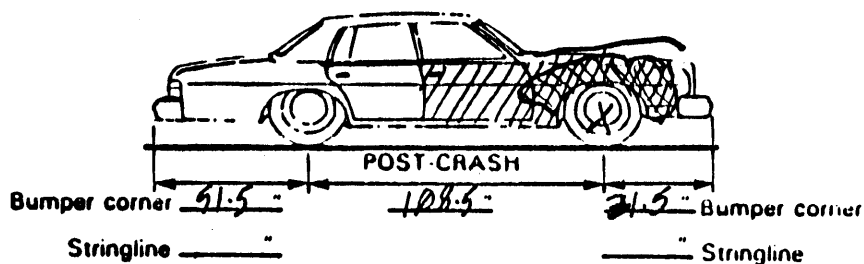
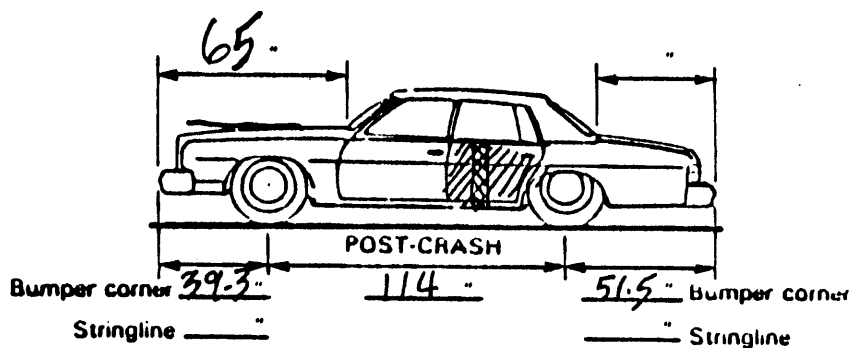
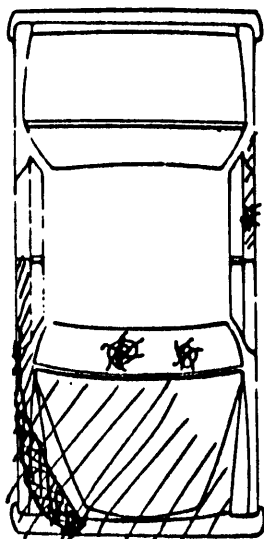
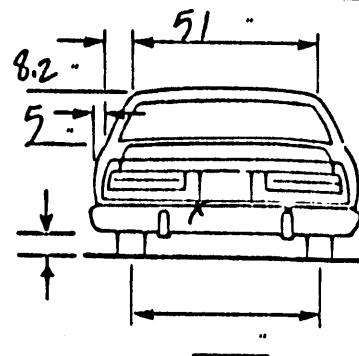
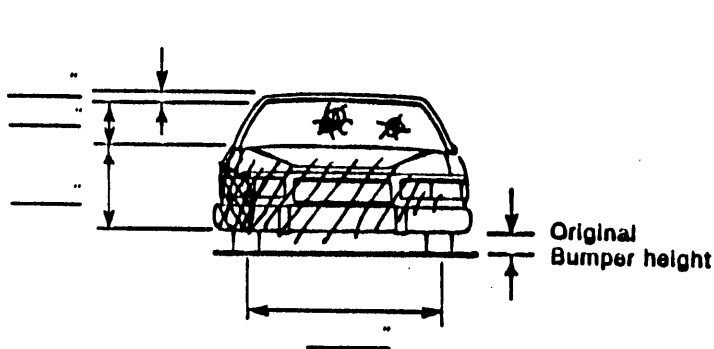
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National Accident Sampling System - Crashworthiness Data System: Exterior Vehicle Form

2

VEHICLE DAMAGE SKETCH

TIRE - WHEEL DAMAGE a. Rotation physically restricted RF <u>1</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		b. Tire deflated RF <u>1</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		ORIGINAL SPECIFICATIONS Wheelbase <u>114.3</u> Overall Length <u>211</u> Maximum Width <u>77.5</u> Curb Weight <u>3821</u> Average Track <u>62.8</u> Front Overhang _____ Rear Overhang _____ Engine Size: cyl./ displ. <u>V8 / 5.8L</u> Undeformed End Width <u>73</u>		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only) RF + <u>-0.5</u> LF + <u>-1.0</u> RR + _____ LR + _____ Within + 5 degrees.	
TYPE OF TRANSMISSION <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic				DRIVE WHEELS <input type="checkbox"/> FWD <input checked="" type="checkbox"/> RWD <input type="checkbox"/> 4WD			
				Approximate Cargo Weight <u>50</u>			



NOTES Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

Noncollision

- (31) Overturn—rollover
(32) Fire or explosion
(33) Jackknife
(34) Other intraunit damage (specify):

- (35) Noncollision injury
(38) Other noncollision (specify):

- (39) Noncollision—details unknown

(41) Tree (≤ 4 inches in diameter)
(42) Tree (> 4 inches in diameter)
(43) Shrubbery or bush
(44) Embankment

- (45) Breakaway pole or post (any diameter)**

(50) Pole or post (≤ 4 inches in diameter)
(51) Pole or post (>4 but ≤ 12 inches in diameter)
(52) Pole or post (>12 inches in diameter)
(53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
(55) Impact attenuator
(56) Other traffic barrier (specify):

- (57) Fence
(58) Wall
(59) Building
(60) Ditch or Culvert
(61) Ground
(62) Fire hydrant
(63) Curb
(64) Bridge
(68) Other fixed object (specify):

- (69) Unknown fixed object

(71) Motor vehicle not in transport
(72) Pedestrian
(73) Cyclist or cycle
(74) Other nonmotorist or conveyance (specify):

- (75) Vehicle occupant
(76) Animal
(77) Train
(78) Trailer, disconnected in transport
(88) Other nonfixed object (specify):

- (89) Unknown nonfixed object

- (98) Other event (specify):

- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

[illegible]

National Accident Sampling System - Crashworthiness Data System: Exterior Vehicle Form

Page 4

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>02</u>	5. <u>02</u>	6. <u>02</u>	7. <u>F</u>	8. <u>R</u>	9. <u>E</u>	10. <u>E</u>	11. <u>02</u>

Second Highest Delta "V"

12. <u>03</u>	13. <u>50</u>	14. <u>09</u>	15. <u>L</u>	16. <u>P</u>	17. <u>E</u>	18. <u>N</u>	19. <u>01</u>
---------------	---------------	---------------	--------------	--------------	--------------	--------------	---------------

CRUSH PROFILE

(The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. ALL MEASUREMENTS ARE IN INCHES.)

HIGHEST DELTA "V"

20. L	21. C1	C2	C3	C4	C5	C6	22. - - D
<u>063</u>	<u>00</u>	<u>00</u>	<u>01</u>	<u>01</u>	<u>03</u>	<u>14</u>	<u>+032</u>

Second Highest Delta "V"

23. L	24. C1	C2	C3	C4	C5	C6	25. + - D
<u>036</u>	<u>00</u>	<u>01</u>	<u>01</u>	<u>01</u>	<u>01</u>	<u>00</u>	<u>-031</u>

26. Are CDCs Documented but Not Coded on The Automated File
(0) No
(1) Yes

0

27. Researcher's Assessment of Vehicle Disposition
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

1

28. Original Wheelbase
Code to the nearest tenth of an inch
(9999) Unknown

114.3

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***
(I.E., GV09 = 0 OR 9), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



U.S. Department of Transportation
National Highway Traffic Safety
Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number

AB 00890

Vehicle Number

01

INTEGRITY

4. Passenger Compartment Integrity

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (rear)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate Or Hatch Opening

5. LF 1 6. RF 3 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening In Collision. If IV05-IV09 ≠ 2, Then Code 0.

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate, or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 0 17. RF 0 18. LR 0 19. RR 0
20. BL 0 21. Roof 0 22. Other 0

(0) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(8) No glazing

(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 2 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing

(1) Glazing contacted by occupant but no glazing damage

(2) Glazing in place and cracked by occupant contact

(3) Glazing in place and holed by occupant contact

(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(5) Glazing out-of-place by occupant contact and holed by occupant contact

(6) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

If No Glazing Damage And No Occupant Contact or No Glazing, Then Code IV 31 Through IV 46 As 0

Type of Window/Windshield Glazing

31. WS 1 32. LF 0 33. RF 0 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing

(1) AS-1 - Laminated

(2) AS-2 - Tempered

(3) AS-3 - Tempered-tinted

(4) AS-14 - Glass/Plastic

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

39. WS 1 40. LF 0 41. RF 0 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(9) Unknown

INTRUSION WORK SHEET

TOP VIEW

Longitudinal

Lateral

Longitudinal

LEFT SIDE VIEW

Vertical

Longitudinal

Longitudinal

RIGHT SIDE VIEW

Vertical

Longitudinal

Longitudinal

Vertical

Note: Sketch intruded areas

LOCATION OF INTRUSION	INTRUDED COMPONENT	COMPARISON VALUE	-	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
Right Front	instrument panel	26.4	-	23.5	=	2.9	Longitudinal
Right Front	side panel	28.5	-	26.3	=	2.2	Lateral
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV 47-IV 86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>1 3</u>	48. <u>0 4</u>	49. <u>1</u>	50. <u>2</u>
2nd	51. <u>1 3</u>	52. <u>2 7</u>	53. <u>1</u>	54. <u>3</u>
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat
(11) Left
(12) Middle
(13) Right

Fourth Seat
(41) Left
(42) Middle
(43) Right

Second Seat
(21) Left
(22) Middle
(23) Right

(97) Catastrophic
(98) Other enclosed
area (specify): _____

Third Seat
(31) Left
(32) Middle
(33) Right

(99) Unknown

INTRUDING COMPONENT**Interior Components**

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back panel or door surface
- (26) Other interior component (specify): _____

- (27) Side panel - forward of the A-pillar
- (28) Side panel - rear of the A-pillar

Exterior Components

- (30) Hood
- (31) Outside surface of vehicle (specify): _____
- (32) Other exterior object in the environment
(specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s)
(specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

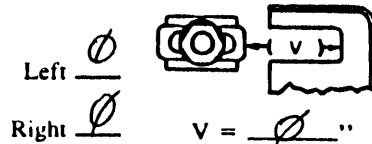
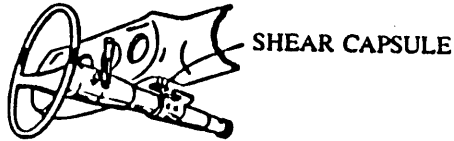
DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

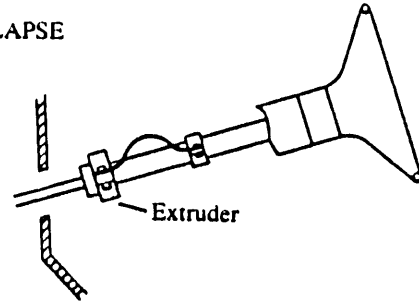
STEERING COLUMN WORKING DIAGRAMS

STEERING COLUMN COLLAPSE

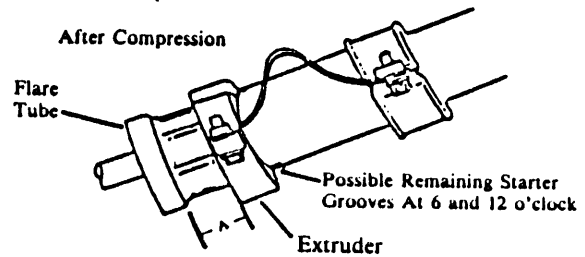
Steering Column Shear Module Movement



Direction and Magnitude of Steering Column Movement



After Compression

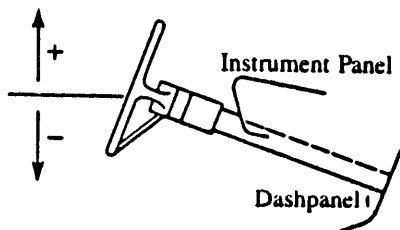


Compression = Measurement A

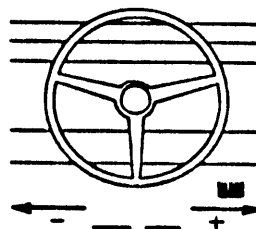
A = _____

STEERING COLUMN MOVEMENT

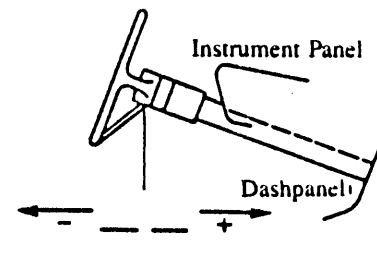
Vertical Movement



Lateral Movement



Longitudinal Movement



	COMPARISON VALUE	-	DAMAGED VALUE	=	MOVEMENT
VERTICAL			-	=	
LATERAL			-	=	
LONGITUDINAL			-	=	

PROOF - OUT OF RANGE

STEERING RIM/SPOKE DEFORMATION

COMPARISON VALUE	-	DAMAGED VALUE	=	DEFORMATION
	-		=	\emptyset
	-		=	\emptyset

National Accident Sampling System—Crashworthiness Data System: Interior Vehicle Form

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STEERING COLUMN**87. Steering Column Type**

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify):

(9) Unknown

If PDOF \neq 11, 12 or 1, Then Code IV88-IV91 As 96**88. Steering Column Collapse Due to Occupant Loading**

Code actual measured movement to the nearest inch. See coding manual for measurement technique(s).

- (00) No movement, compression, or collapse
 (01-19) Actual measured value
 (20) 20 inches or greater

Estimated movement from observation

- (81) Less than 1 inch
 (82) \geq 1 inch but $<$ 2 inches
 (83) \geq 2 inches but $<$ 4 inches
 (84) \geq 4 inches but $<$ 6 inches
 (85) \geq 6 inches but $<$ 8 inches
 (86) Greater than or equal to 8 inches
 (96) Not assessed (PDOF \neq 11, 12, 1)
 (97) Apparent movement, value undetermined or cannot be measured or estimated
 (98) Nonspecified type column
 (99) Unknown

Direction And Magnitude of Steering Column Movement**89. Vertical Movement**

+ 96

90. Lateral Movement

+ 96

91. Longitudinal Movement

+ 96

Code the actual measured movement to the nearest inch. See Coding Manual for measurement technique(s)

- (00) No steering column movement
 (\pm 01 – \pm 49) Actual measured value
 (\pm 50) 50 inches or greater

Estimated movement from observation

- (\pm 81) \geq 1 inch but $<$ 3 inches
 (\pm 82) \geq 3 inches but $<$ 6 inches
 (\pm 83) \geq 6 inches but $<$ 12 inches
 (\pm 84) \geq 12 inches
 (96) Not assessed (PDOF \neq 11, 12, 1)
 (97) Apparent movement $>$ 1 inch but cannot be measured or estimated
 (99) Unknown

92. Steering Rim/Spoke Deformation

Code actual measured deformation to the nearest inch.

- (0) No steering rim deformation
 (1-5) Actual measured value
 (6) 6 inches or more
 (8) Observed deformation cannot be measured
 (9) Unknown

93. Location of Steering Rim/Spoke Deformation

- (00) No steering rim deformation

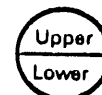
Quarter Sections

- (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D



Half Sections

- (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown

INSTRUMENT PANEL**94. Odometer Reading**

2869 miles—Code mileage to the nearest 1,000 miles

- (000) No odometer
 (001) Less than 1,500 miles
 (300) 299,500 miles or more
 (999) Unknown

Source: Inspection

95. Instrument Panel Damage from Occupant Contact?

- (0) No
 (1) Yes
 (9) Unknown

96. Knee Bolsters Deformed from Occupant Contact?

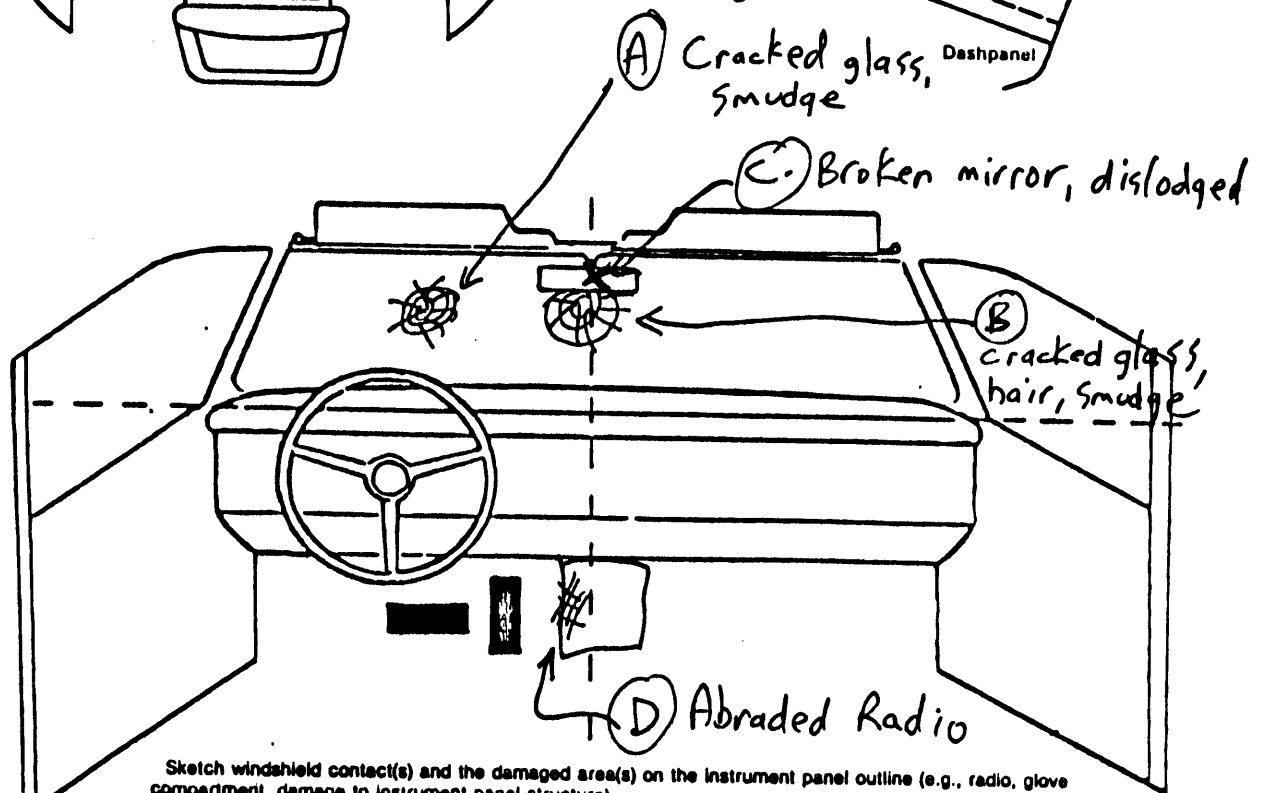
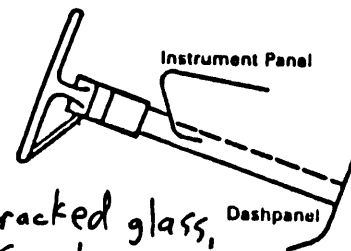
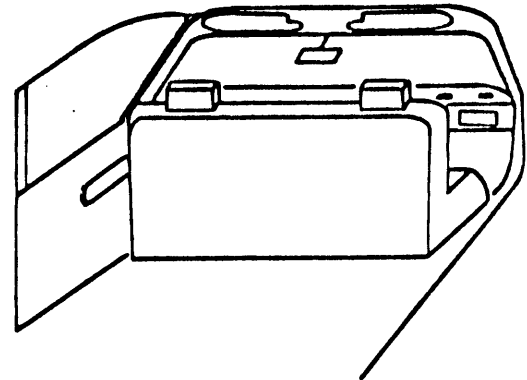
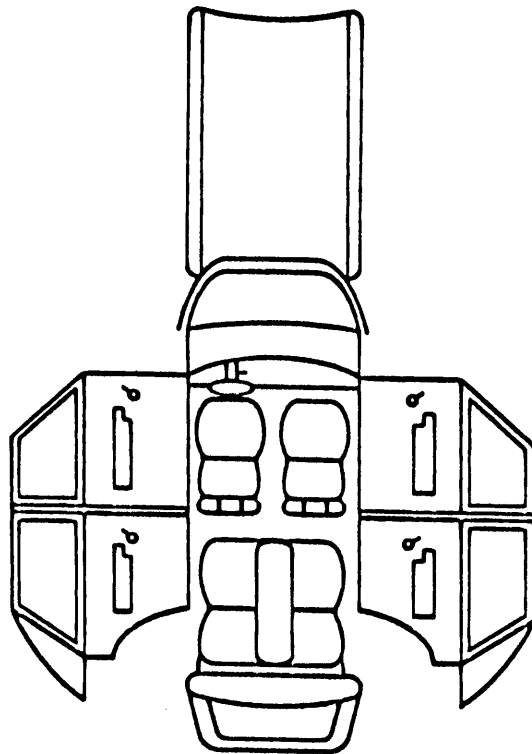
- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

97. Did Glove Compartment Door Open During Collision(s)?

- (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

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POINTS OF OCCUPANT CONTACT					
Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	01	01	Arm?	Cracked glass / smudge	1
B	01	01	Head	Broken glass/hair/smudge	1
C	02	01	Head	Broken/dislodged mirror	1
D	49	01	leg	Abraded Radio	1
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

CODES FOR INTERIOR COMPONENTS

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify):

LEFT SIDE

- (20) Left side interior, surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify):
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify):

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (37) Other right side object (specify):

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify):
- (47) Interior loose objects

- (48) Child safety seat (specify):

- (49) Other interior object (specify):

Police Radio

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

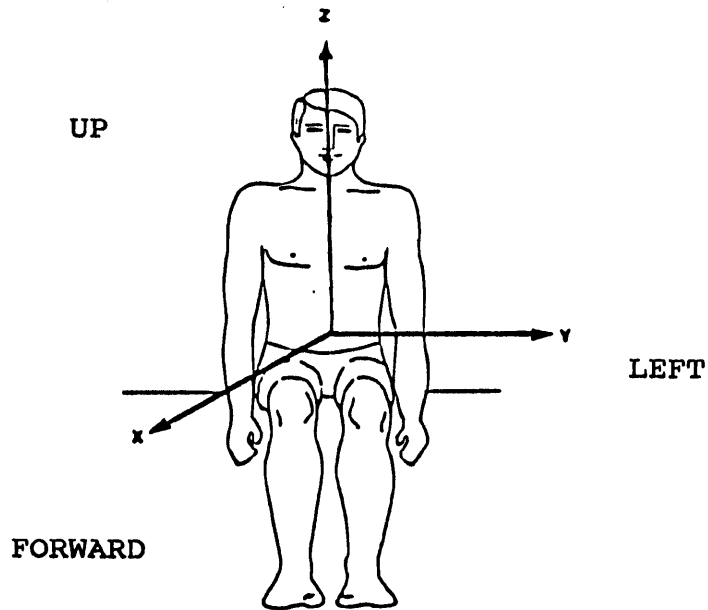
- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (4) Unknown



CASE NO. 566

VEHICLE NO. 01

CONTACT POINT	OCC. NUM.	MEASURED COORDINATES		
		forward	left	up
		X	Y	Z
A	01	26	0	19.9
B	01	26	-13	22
C	01	18.5	-14.5	22
D	01	24	-11.3	-3
E				
F				
G				
H				
I				
J				
K				
L				
M				
N				

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MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	3	4
	Use	99	00	00
	Failure Modes	9	0	0
SECOND	Availability	4	3	4
	Use	00	00	00
	Failure Modes	0	0	0
THIRD	Availability			
	Use			
	Failure Modes			
OTHER	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available — type unknown
- (8) Other belt (specify):

(9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used — type unknown

(08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat — type unknown
- (18) Other belt used with child safety seat (specify):

(99) Unknown if belt used

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
F I R S T	Availability	1	0	0
	Function	4	0	0
	Failure	1	0	0

Automatic (Passive) Restraint System Availability

- (0) Not equipped/not available
- (1) Airbag
- (2) Airbag disconnected (specify): _____
- (3) Airbag not reinstalled
- (4) 2 point automatic belts
- (5) 3 point automatic belts
- (6) Automatic belts destroyed or rendered inoperative
- (9) Unknown

Automatic (Passive) Restraint Function

- (0) Not equipped/not available

Automatic Belt

- (1) Automatic belt in use
- (2) Automatic belt not in use
- (3) Automatic belt use unknown

Air Bag

- (4) Airbag deployed during accident
- (5) Airbag deployed inadvertently just prior to accident
- (6) Deployed, accident sequence undetermined
- (7) Nondeployed
- (8) Unknown if deployed
- (9) Unknown

Did Automatic (Passive) Restraint Fail

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

- (0) No child safety seat
 (1) Infant seat
 (2) Toddler seat
 (3) Convertible seat
 (4) Booster seat
 (7) Other type child safety seat (specify):

 (8) Unknown child safety seat type
 (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat
 Designed for Rear Facing for This Age/Weight

(01) Rear facing
 (02) Forward facing
 (03) Other orientation (specify):

 (04) Unknown orientation

Designed for Forward Facing for This Age/Weight

(11) Rear facing
 (12) Forward facing
 (18) Other orientation (specify):

 (19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight

(21) Rear facing
 (22) Forward facing
 (28) Other orientation (specify):

 (29) Unknown orientation

(99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage**4. Child Safety Seat Shield Usage****5. Child Safety Seat Tether Usage**

Note: Options Below Are Used for Variables 3-5.

(00) No child safety seat

Not Designed with Harness/Shield/Tether

(01) After market harness/shield/tether added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market harness/shield/tether added

(09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

Unknown if Designed with Harness/Shield/Tether

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

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HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attributes for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	06	06	06
	Seat Performance	1	1	1
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral – no damage
- (2) Integral – damaged during accident
- (3) Adjustable – no damage
- (4) Adjustable – damaged during accident
- (5) Add-on – no damage
- (6) Add-on – damaged during accident
- (8) Other (specify): _____
- (9) Unknown

Seat Type (This Occupant Position)

- (00) No seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., van type)
- (09) Other seat type (specify): _____
- (99) Unknown

Seat Performance (This Occupant Position)

- (0) No seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks failed
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____

- (7) Combination of above (specify): _____
- (8) Other (specify): _____

- (9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E. UNUSUAL OCCUPANT CONTACT PATTERN)

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EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indications that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [☒] Yes []

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

Ejection Area

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

- (9) Unknown

Ejection Medium

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

- (9) Unknown

Medium Status (Immediately Prior to Impact)

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

ENTRAPMENT No [☒] Yes []

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)



OCCUPANT ASSESSMENT FORM

2. Case Number—

AB00890

3. Vehicle Number

01

4. Occupant Number

01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

35

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

1

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

70

Code actual height to the nearest inch.

(99) Unknown

8. Occupant's Weight

175

Code actual weight to the nearest pound.

(999) Unknown

9. Occupant's Role

1

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

11

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

(1) Abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

(0) No ejection

(1) Complete ejection

(2) Partial ejection

(3) Ejection, unknown degree

(9) Unknown

13. Ejection Area

(0) No ejection

(1) Windshield

(2) Left front

(3) Right front

(4) Left rear

(5) Right rear

(6) Rear

(7) Roof

(8) Other area (e.g., back of pickup, etc.)

(specify):

(9) Unknown

14. Ejection Medium

(0) No ejection

(1) Door/hatch/tailgate

(2) Nonfixed roof structure

(3) Fixed glazing

(4) Nonfixed glazing (specify):

(5) Integral structure

(8) Other medium (specify):

(9) Unknown

15. Medium Status (Immediately Prior to Impact)

(0) No ejection

(1) Open

(2) Closed

(3) Integral structure

(9) Unknown

16. Entrapment

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

(0) Not entrapped

(1) Entrapped

(9) Unknown

National Accident Sampling System - Crashworthiness Data System: Occupant Assessment Form

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RESTRAINT SYSTEM AND SEAT EVALUATION**17. Manual (Active) Belt System Availability** 4

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown
- (8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 99

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat

(specify): _____

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 9

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 9

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

- (6) Broken retractor
- (7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Automatic (Passive) Restraint System Availability 1

- (0) Not equipped/not available
- (1) Airbag
- (2) Airbag disconnected (specify): _____

- (3) Airbag not reinstalled
- (4) 2 point automatic belts
- (5) 3 point automatic belts
- (6) Automatic belts destroyed or rendered inoperative
- (9) Unknown

22. Automatic (Passive) Restraint Function 4

- (0) Not equipped/not available

Automatic Belt

- (1) Automatic belt in use
- (2) Automatic belt not in use
- (3) Automatic belt use unknown

Air Bag

- (4) Airbag deployed during accident
- (5) Airbag deployed inadvertently just prior to accident
- (6) Deployed, accident sequence undetermined
- (7) Nondeployed
- (8) Unknown if deployed
- (9) Unknown

23. Did Automatic (Passive) Restraint Fail? 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____

(9) Unknown

24. Police Reported Restraint Use 4

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

- (8) Restrained, type unknown
- (9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____

(9) Unknown

National Accident Sampling System—Crashworthiness Data System: Occupant Assessment Form

Page 3

26. Seat Type (This Occupant Position) 06

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., van type)
- (09) Other seat type (specify):

(99) Unknown

27. Seat Performance (This Occupant Position) 1

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks failed
- (4) Seat track/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify):

(7) Combination of above (specify):

(8) Other (specify):

(9) Unknown

CHILD SAFETY SEAT28. Child Safety Seat Make/Model 000

- (000) No child safety seat
- Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
- (997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00

- (00) No child safety seat

Designed for Rear Facing for This Age/Weight

- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 0032. Child Safety Seat Shield Usage 0033. Child Safety Seat Tether Usage 00

Note: Options below applicable to Variables OA31-OA33.

- (00) No child safety seat

Not Designed with
Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

National Accident Sampling System – Crashworthiness Data System: Occupant Assessment Form

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INJURY CONSEQUENCES**34. Injury Severity (Police Rating)**

- (0) O – No injury
 (1) C – Possible injury
 (2) B – Nonincapacitating injury
 (3) A – Incapacitating injury
 (4) K – Killed
 (5) U – Injury, severity unknown
 (6) Died prior to accident
 (9) Unknown

35. Treatment – Mortality

- (0) No treatment
 (1) Fatal
 (2) Fatal – ruled disease

Nonfatal

- (3) Hospitalized
 (4) Transported and released
 (5) Treatment at scene – nontransported
 (6) Treatment later
 (8) Treatment – other (specify): _____

- (9) Unknown

36. Type of Medical Facility (for Initial Treatment)

- (0) Not treated at a medical facility
 (1) Trauma center
 (2) Hospital
 (3) Medical clinic
 (4) Physician's office
 (5) Treatment later at medical facility
 (8) Other (specify): _____

- (9) Unknown

37. Hospital stay

- _____ Code number of days (up through 60) that the occupant stayed in the hospital
 (00) Not hospitalized
 (61) 61 days or more
 (99) Unknown

38. Working Days Lost

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
 (00) No working days lost
 (61) 61 days or more
 (62) Fatally injured
 (97) Not working prior to accident
 (99) Unknown

39. Time to Death

- _____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 24 hours, 2 days = 48, ... n days = 24 + n up through 30 days = 60)
 (00) Not fatal
 (96) Fatal – ruled disease
 (99) Unknown

40. 1st Medically Reported Cause of Death**41. 2nd Medically Reported Cause of Death****42. 3rd Medically Reported Cause of Death**

- _____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
 (00) Not fatal or no additional causes
 (97) Other result (specify): _____

- (99) Unknown

43. Number of Recorded Injuries for This Occupant

- _____ Code the actual number of injuries recorded for this occupant.
 (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

UPDATE CANDIDATE

NO [✓]

YES []

*** STOP HERE ***

IF THERE ARE NO RECORDED INJURIES

(I.E., OA43=00, 97, 99)



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number—

AB00890

Vehicle Number

01

Occupant Number

01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S.				Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.	
		Body Region	Aspect	Lesion	System Organ					A.I.S. Severity
1st	6. 2	8. F	7. S	2. L	9. I	10. 2	11. 01	12. 1	13. 1	14. 00
2nd	15. 2	16. I	17. R	18. A	19. I	20. 1	21. 49	22. 1	23. 1	24. 00
3rd	25. 2	26. W	27. L	28. C	29. I	30. 1	31. 01	32. 1	33. 1	34. 00
4th	35. —	36. —	37. —	38. —	39. —	40. —	41. —	42. —	43. —	44. —
5th	45. —	46. —	47. —	48. —	49. —	50. —	51. —	52. —	53. —	54. —
6th	55. —	56. —	57. —	58. —	59. —	60. —	61. —	62. —	63. —	64. —
7th	65. —	66. —	67. —	68. —	69. —	70. —	71. —	72. —	73. —	74. —
8th	75. —	76. —	77. —	78. —	79. —	80. —	81. —	82. —	83. —	84. —
9th	85. —	86. —	87. —	88. —	89. —	90. —	91. —	92. —	93. —	94. —
10th	95. —	96. —	97. —	98. —	99. —	100. —	101. —	102. —	103. —	104. —

SOURCE OF INJURY DATA**OFFICIAL**

- (1) Autopsy records with or without hospital medical records
- (2) Hospital medical records other than emergency room (eg. discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewees
- (8) Other source (specify): _____

(9) Police

INJURY SOURCE**FRONT**

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add-on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify): _____

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, roof side rail
- (37) Other right side object (specify): _____

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____
- (47) Interior loose objects
- (48) Child safety seat (specify): _____
- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTENSION OF OCCUPANT'S VEHICLE

- (66) Hood
- (68) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): _____

(68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): _____

- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

(83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____

(86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____
- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION**O.I.C. Body Region**

- (M) Abdomen
- (Q) Ankle-foot
- (A) Arm (upper)
- (B) Back-thoracolumbar spine
- (C) Chest
- (E) Elbow
- (F) Face
- (H) Forearm
- (H) Head-skull
- (U) Injured, unknown region
- (K) Knee
- (L) Leg (lower)
- (Y) Lower limb(s) (whole or unknown part)
- (N) Neck-cervical spine
- (P) Pelvic-hip
- (S) Shoulder
- (T) Thigh
- (U) Upper limb(s) (whole or unknown part)
- (O) Whole body

(W) Wrist-hand**Aspect of Injury**

- (A) Anterior-front
- (B) Bilateral (if fracture only)
- (C) Central
- (I) Inferior-lower
- (U) Injured, unknown aspect
- (L) Left
- (P) Posterior-back
- (H) Right
- (S) Superior-upper
- (W) Whole region

Lesion

- (A) Abrasion
- (M) Amputation
- (V) Avulsion
- (B) Burn
- (K) Concussion
- (C) Contusion
- (N) Crush

(G) Detachment, separation

- (D) Dislocation
- (F) Fracture
- (Z) Fracture and dislocation
- (U) Injured, unknown lesion
- (L) Laceration
- (O) Other
- (P) Perforation, puncture
- (R) Rupture
- (S) Sprain
- (T) Strain
- (E) Total severance, transection

System/Organ

- (W) All systems in region
- (A) Arteries-veins
- (B) Brain
- (D) Digestive
- (E) Ear
- (I) Eye
- (H) Heart
- (U) Injured, unknown system

(I) Integumentary

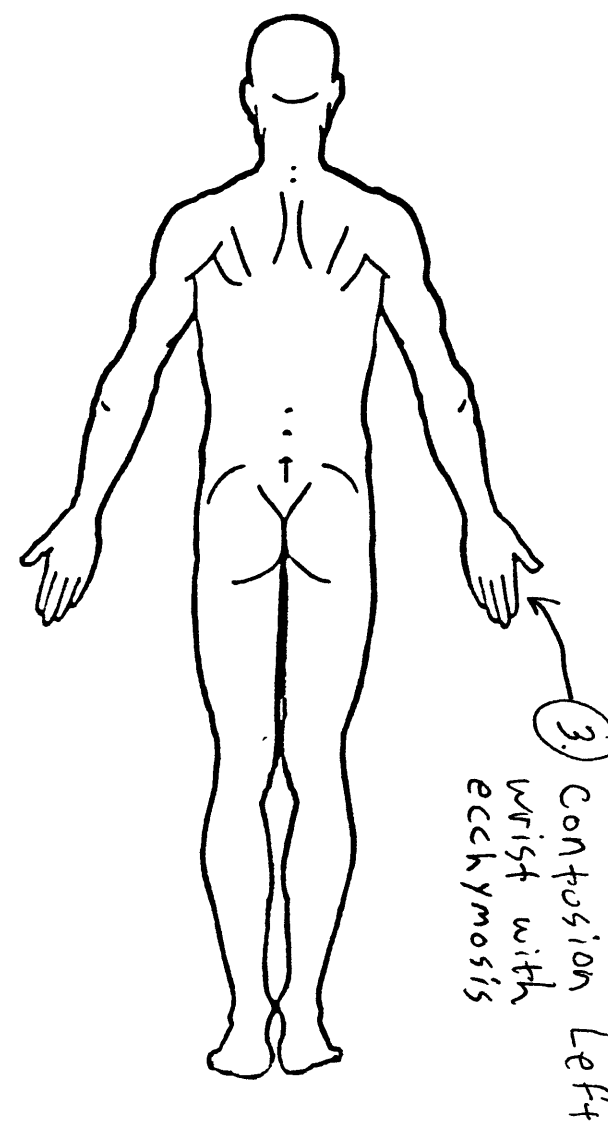
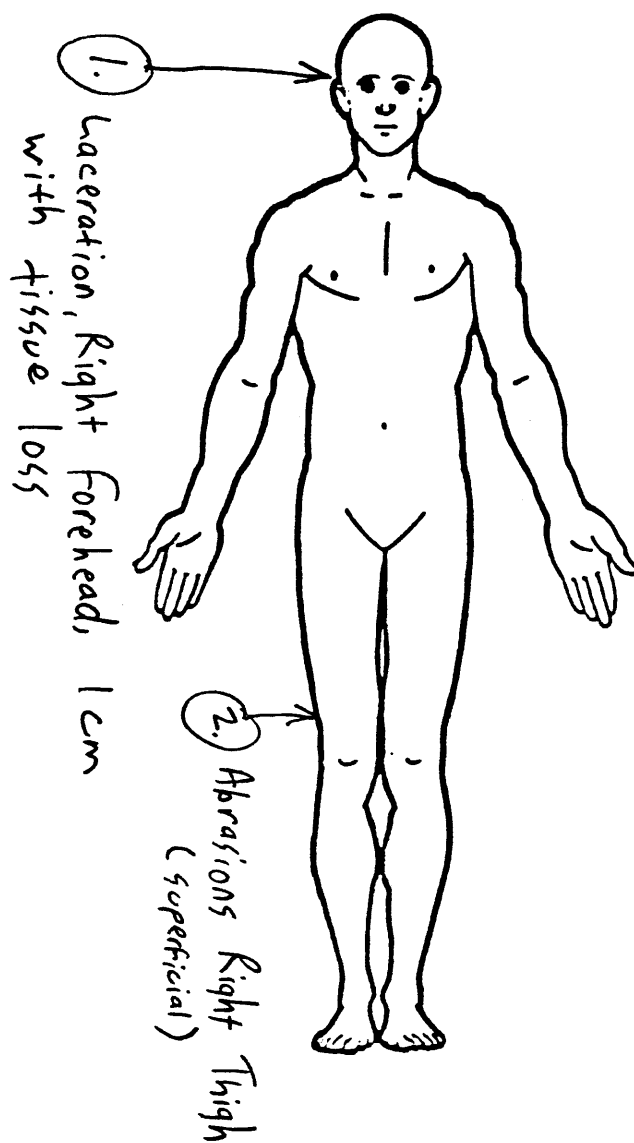
- (J) Joints
- (K) Kidneys
- (L) Liver
- (M) Muscles
- (N) Nervous system
- (P) Pulmonary-lungs
- (R) Respiratory
- (S) Skeletal
- (C) Spinal cord
- (U) Spleen
- (T) Thyroid, other endocrine gland
- (G) Urinary
- (V) Vertebral

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

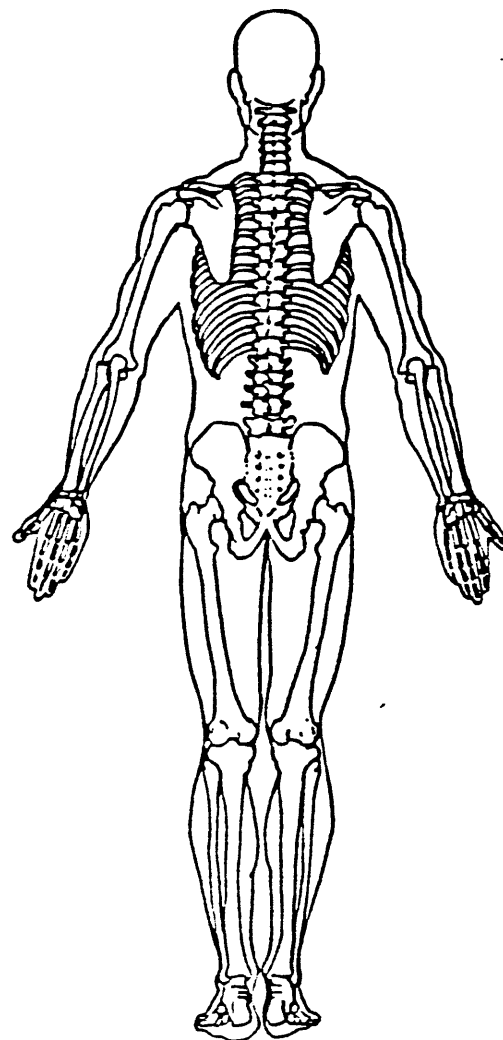
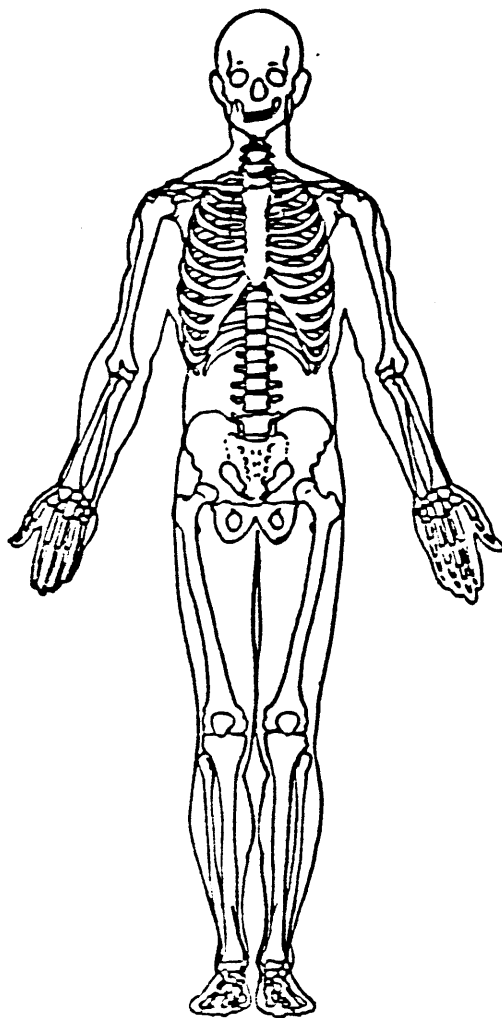
OFFICIAL INJURY DATA - SOFT TISSUE INJURIES

Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA - SKELETAL INJURIES

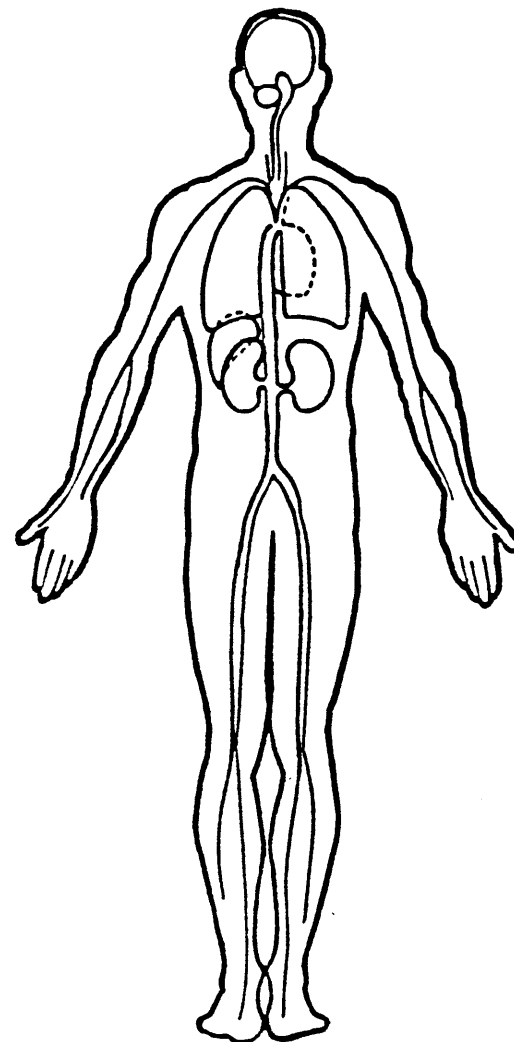
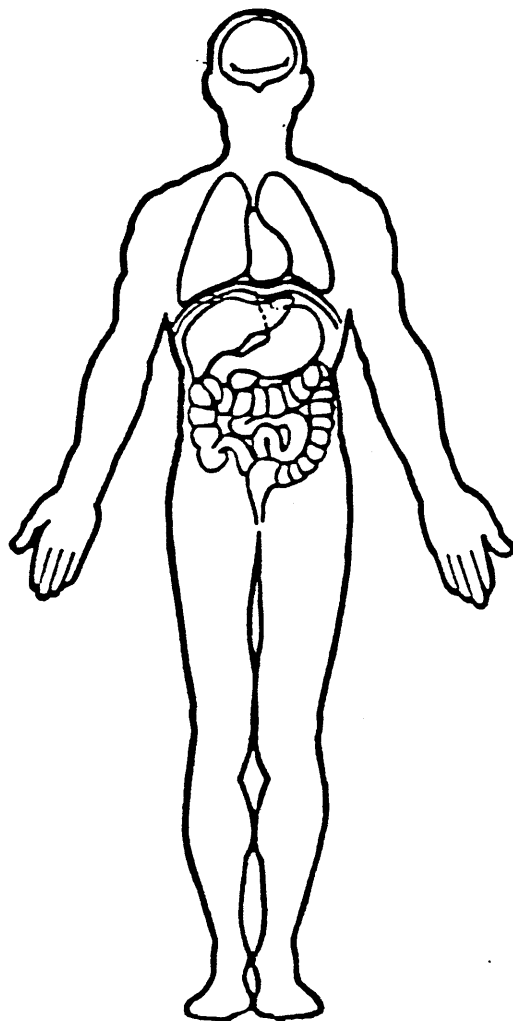
Indicate the *Location*, *Lesion*, *Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA - INTERNAL INJURIES

BEST AVAILABLE COPY

Indicate the *Location*, *Lesion*, *Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





INTERVIEW FORM

Case Number -

AB00890

Interviewee(s) Role(s) or Name(s) Driver VI

Vehicle Number

01

Review the Interview Cue Sheet prior to conducting interview(s) to ensure the acquisition of all pertinent data.

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

I was on the shoulder with my siren and emergency lights on. The lady just came onto the shoulder and hit me.

I was eastbound in pursuit of a subject on foot. The cars hit right front to right front.

NOTE: Interview was limited due to pending litigation.

SPECIFIC QUESTIONS

Seatbelt? - Yes, using the manual lap and shoulder belt.

Key to Researcher: Have you obtained the following through the interviewee(s) description and specific questions?

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> PRE-CRASH, AT IMPACT vehicle travel/driver intention | <input type="checkbox"/> Speed estimates (precrash/at impact) | <input type="checkbox"/> Previous vehicle damage |
| <input checked="" type="checkbox"/> Direction of travel | <input type="checkbox"/> Post-impact trajectory | <input type="checkbox"/> Glazing type |
| <input type="checkbox"/> Avoidance maneuvers | <input type="checkbox"/> Door status (precrash/postcrash) | <input type="checkbox"/> Vehicle glazing status |
| <input checked="" type="checkbox"/> Impact description/orientation | <input type="checkbox"/> Final rest position | <input type="checkbox"/> PAR clarifications |
| | | <input type="checkbox"/> Glove box status |

Cargo? No ☐ Yes ☐ Interviewee's Estimated Cargo Weight _____

Description of Cargo _____

Present Location of Vehicle (if not yet inspected)? _____

National Accident Sampling System – Crashworthiness Data System: Interview Form

Page 2

OCCUPANT DATA

Enter the occupant's seat position in the first row and complete the column below it using the information from the interviewee(s).

SEAT POSITION	Left front			
AGE/SEX	35/M			
HEIGHT (IN.)		2 already obtained		
WEIGHT (LBS.)				
POSTURE	Normal			
EJECTED? [] No [] Yes				
DESCRIBE THE EJECTION				
ENTRAPPED? [] No [] Yes				
DESCRIBE ENTRAPMENT				
TYPE OF RESTRAINT AVAILABLE?	Lap and shoulder plus airbag			
HOW WERE THE BELTS WORN?	Normally			
DESCRIBE ANY RESTRAINT FAILURE MODE	Says shoulder belt did not catch			
TYPE OF TREATMENT				
DAYS IN HOSPITAL?				
NO. OF LOST WORK DAYS?				

National Accident Sampling System—Crashworthiness Data System: Interview Form

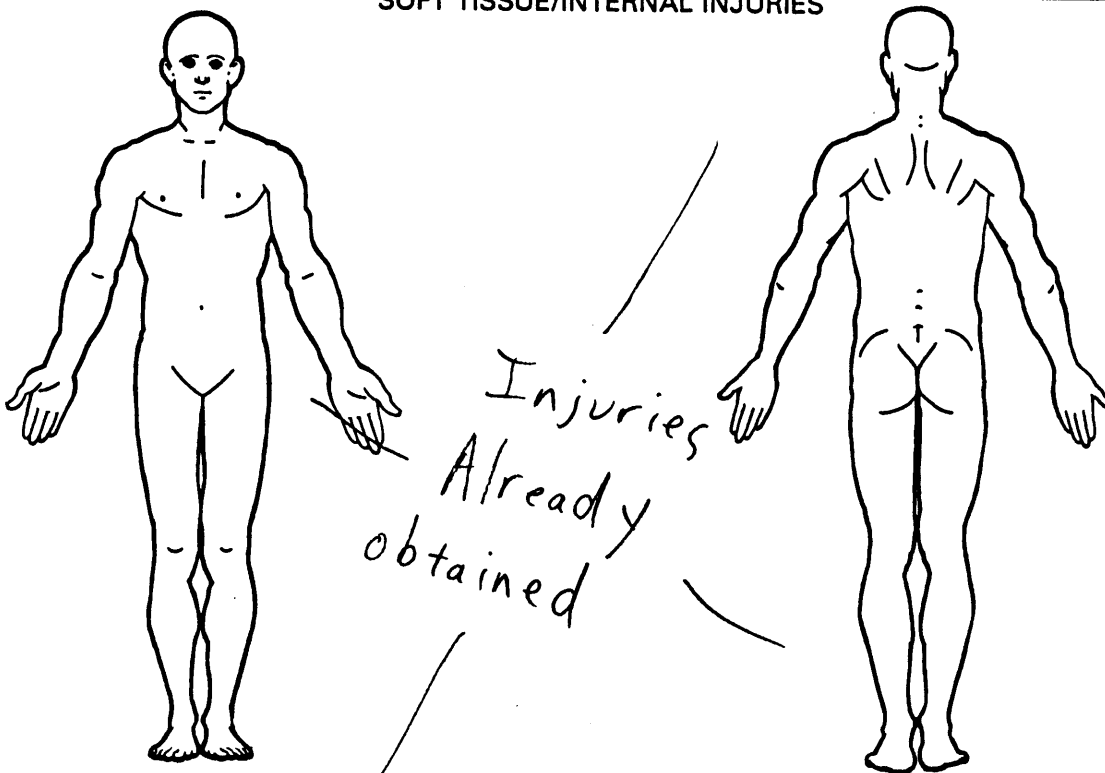
Page 3

PSU Number _____ Case Number—Stratum _____ Vehicle Number _____ Occupant Number _____

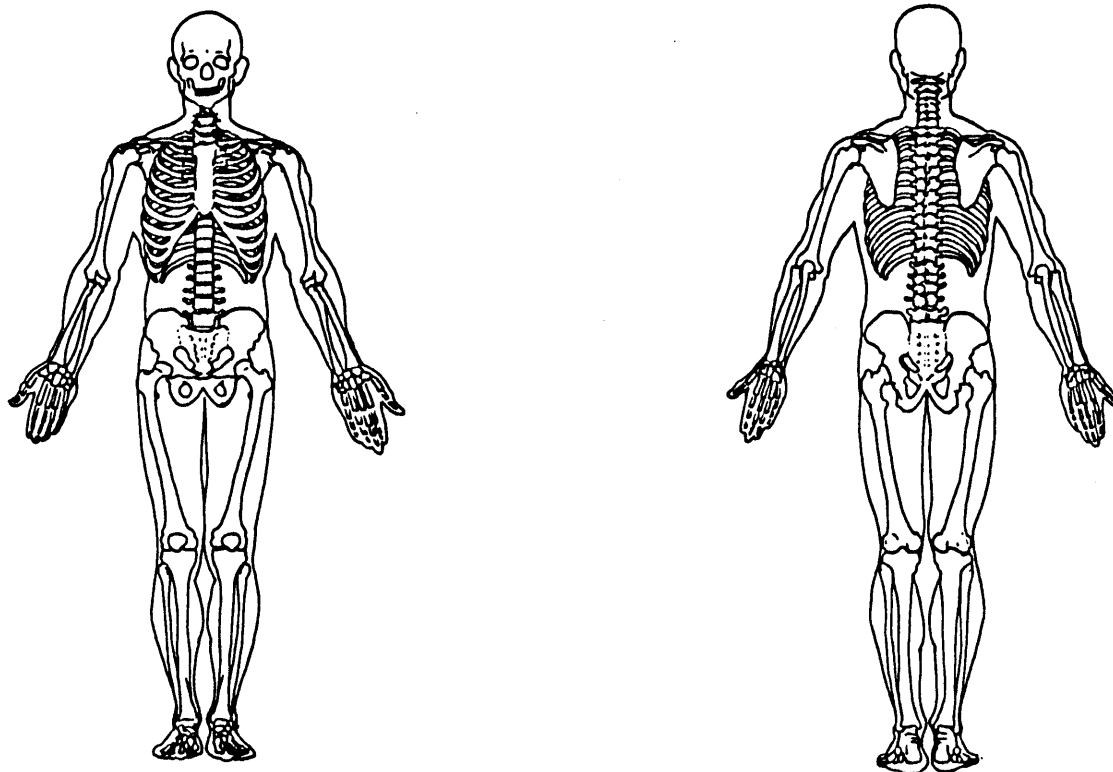
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES

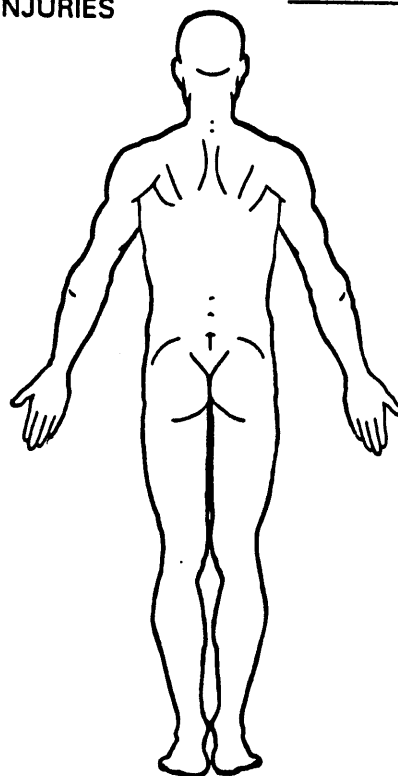
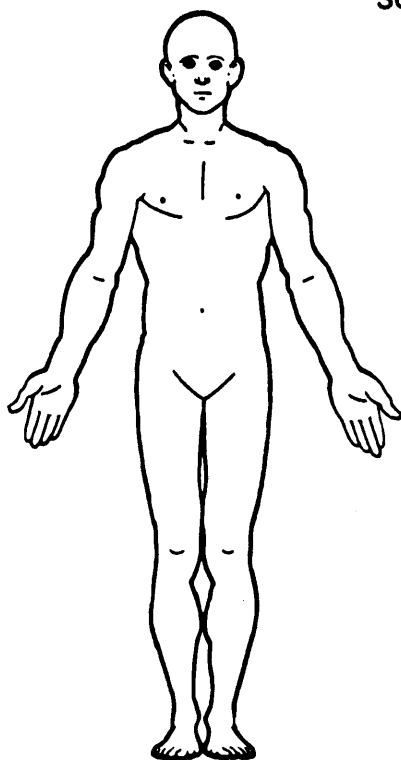
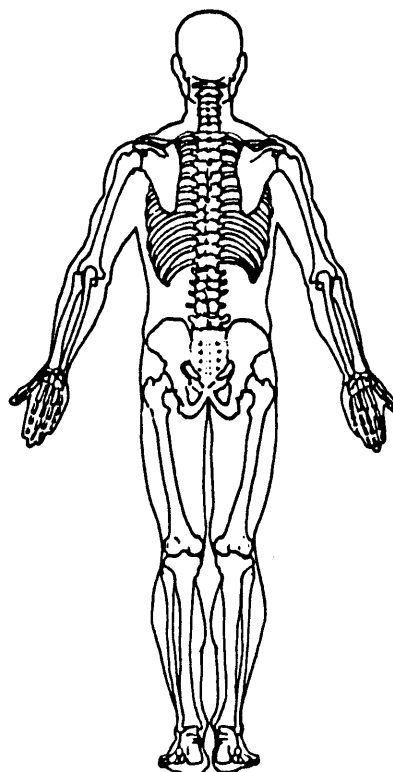
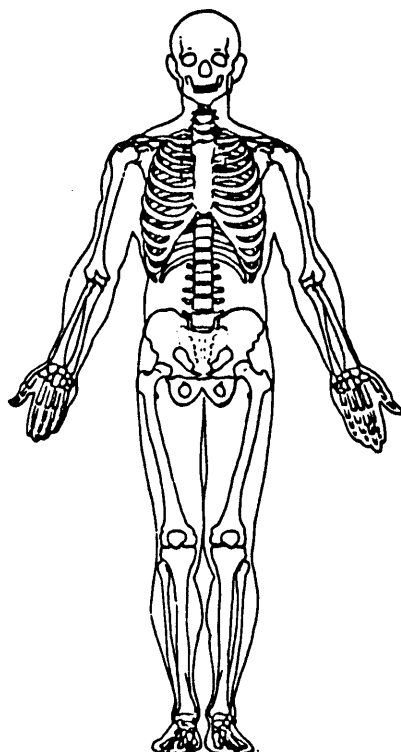


The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

National Accident Sampling System—Crashworthiness Data System: Interview Form

Page 4

PSU Number _____ Case Number—Stratum _____ Vehicle Number _____ Occupant Number _____

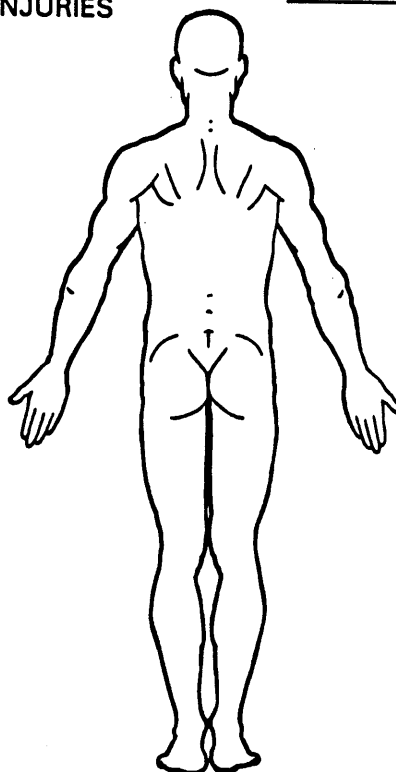
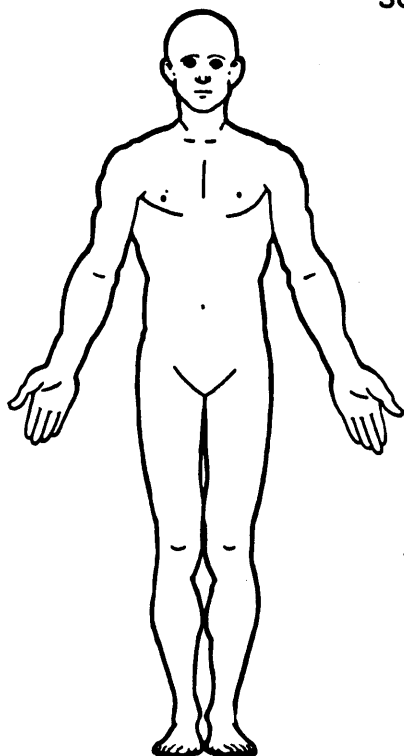
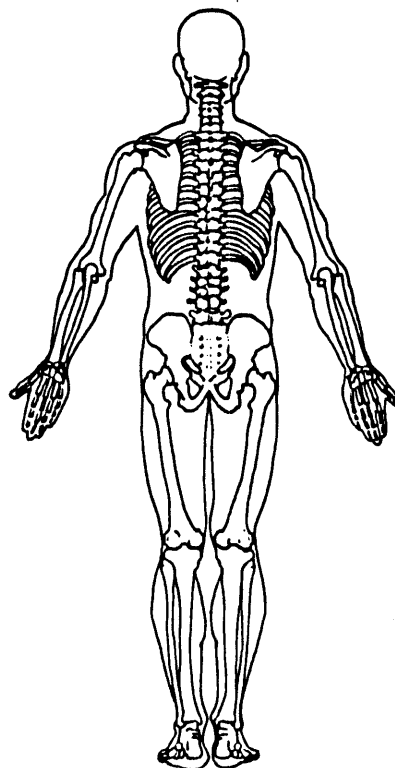
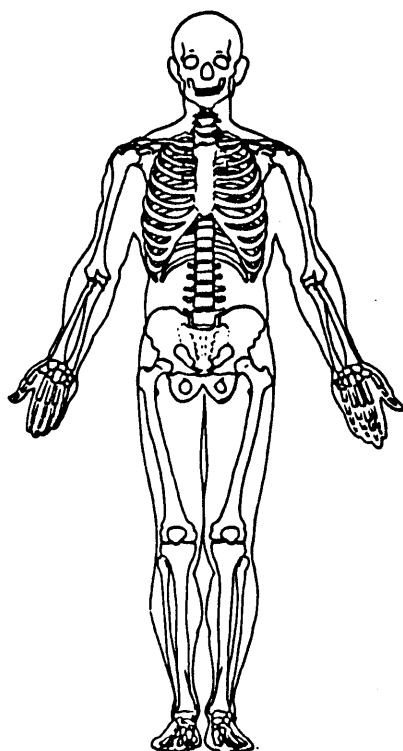
INJURY DATA FROM INTERVIEWEE(S)Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____**SOFT TISSUE/INTERNAL INJURIES****SKELETAL INJURIES**

The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

National Accident Sampling System—Crashworthiness Data System: Interview Form

Page 5

PSU Number _____ Case Number—Stratum _____ Vehicle Number _____ Occupant Number _____

INJURY DATA FROM INTERVIEWEE(S)Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____**SOFT TISSUE/INTERNAL INJURIES****SKELETAL INJURIES**

The space provided on the back of this page may be used to document injuries noted by the interviewee(s).



U.S. Department of Transportation
National Highway Traffic Safety
Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number

AB00890

Vehicle Number

02

VEHICLE IDENTIFICATION

4. Vehicle Model Year

87

Code the last two digits of the model year
(99) Unknown

5. Vehicle Make (specify):

Cadillac

19

Applicable codes are found in your
NASS CDS Data Collection, Coding, and
Editing Manual.
(99) Unknown

6. Vehicle Model (specify):

Fleetwood

003

Applicable codes are found in your
NASS CDS Data Collection, Coding, and
Editing Manual.
(99) Unknown

7. Body Type

04

Note: Applicable codes are found on
the back of this page.

8. Vehicle Identification Number

1G6CB5185H

Left justify; Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nine's

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition

- (0) Not towed due to vehicle damage
- (1) Towed due to vehicle damage
- (9) Unknown

1

10. Police Reported Travel Speed

99

Code to the nearest mph (NOTE: 00 means
less than 0.5 mph)
(97) 96.5 mph and above
(99) Unknown

11. Police Reported Alcohol or Drug Presence

- (0) Neither alcohol nor drugs present
- (1) Yes (alcohol present)
- (2) Yes (drugs present)
- (3) Yes (alcohol and drugs present)
- (4) Yes (alcohol or drugs present—specifics
unknown)
- (7) Not reported
- (8) No driver present
- (9) Unknown

0

12. Alcohol Test Result for Driver

- Code actual value (decimal implied before
first digit—0.xx)
- (95) Test refused
- (96) None given
- (97) AC test performed, results unknown
- (98) No driver present
- (99) Unknown

96

Source

PAR

ACCIDENT RELATED

13. Speed Limit

- (00) No statutory limit
- Code posted or statutory speed limit
- (99) Unknown

55

14. Attempted Avoidance Maneuver

- (00) No impact
- (01) No avoidance actions
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (97) No driver present
- (98) Other action (specify):

09

(99) Unknown

15. Accident Type

Applicable codes may be found on the back
of page two of this field form

- (00) No impact
- Code the number of the diagram that
best describes the accident circumstance
- (98) Other accident type (specify):

50

(99) Unknown

**** STOP HERE IF GV07 DOES NOT EQUAL 01-49 ****

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (08) Other automobile type (specify): _____

- (09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, and Brat)
- (11) Auto based panel (cargo station wagon, includes auto based ambulance/hearse)
- (12) Large limousine—more than four side doors or stretched chassis

Utility Vehicles

- (13) Short utility—not truck based (includes Jeep CJ-5, Jeep CJ-7, Renegade, Landrover, Pre-78 Bronco, Landcruiser, Thing)
- (14) Truck based utility (2-door; includes Blazer, Bronco—78 on, Bronco II, Jimmy, Ramcharger, Cherokee, Trailduster, Scout)

Van Based Light Trucks ($\leq 10,000$ lbs GVWR)

- (20) Minivan (Lumina APV, Astro, Caravan, Plymouth Vista, Aerostar, Safari, Voyager [84 and after], Dodge Vista, Mini Ram Van, Toyota Cargo Van, Toyota Van, Vanagon, VW Bus, Kombi)
- (21) Standard van (Sportvan, Chevy Van, Club Wagon, Ford Econoline, Ram Van, Chateau, Ram Wagon, Vandura, Rally, Voyager [83 and before], Beauville, Sportsman)
- (28) Other van type (specify): _____
- (29) Unknown van type

Light Conventional Trucks (Pickup Style Cab, 10,000 lbs GVWR)

- (30) Compact pickup (<4,500 lbs. GVWR, S-10, LUV, Ram 50, Rampage, Courier, Ranger, S-15 Pup, Mazda Pickup, Mitsubishi Truck, Nissan Pickup, Arrow Pickup, Scamp, Toyota Pickup, VW Pickup)
- (31) Standard pickup (4,500 to 10,000 lbs. GVWR, C10 - C30, K10 - K30, T10, D100 - D350, W150 - W350, F100 - F350, Comanche, J10 - J30, Dakota)
- (32) Pickup with slide-in camper
- (33) Truck based station wagon (4-door; includes Suburban, Travelall, Wagoneer)
- (34) Light truck based suburban limousine
- (35) Convertible pickup
- (39) Unknown (pickup style) light conventional truck type

Other Light Trucks ($\leq 10,000$ lbs GVWR)

- (40) Cab chassis based (includes rescue vehicle, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (47) Other light conventional truck type (not a pickup) (specify): _____
- (48) Unknown other light truck type (not a pickup)
- (49) Unknown light vehicle type (automobile, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): _____

- (59) Unknown bus type

Medium/Heavy Trucks ($>10,000$ lbs GVWR)

- (60) Step van
- (61) Single unit straight truck (10,000 lbs \leq GVWR $\leq 26,000$ lbs)
- (62) Single unit straight truck ($>26,000$ lbs GVWR)
- (63) Medium/heavy truck based motorhome
- (64) Truck-tractor with no cargo trailer
- (65) Truck-tractor pulling one trailer
- (66) Truck-tractor pulling two or more trailers
- (67) Truck-tractor (unknown if pulling trailer)
- (68) Unknown medium/heavy truck type
- (69) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

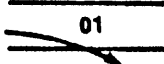
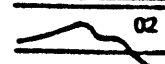
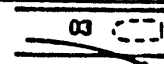
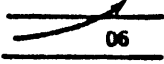
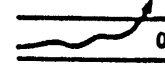
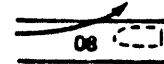
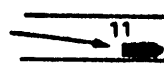
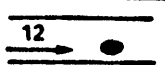

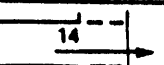

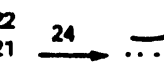
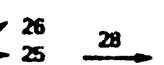
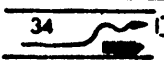
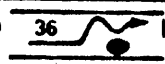

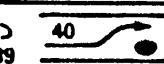
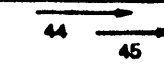
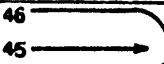


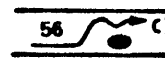

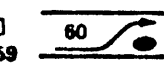


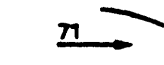
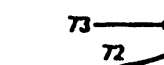
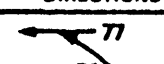
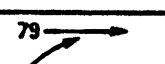
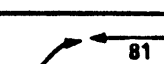
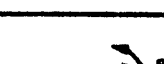


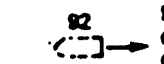
- (70) Motorcycle
- (71) Moped (motorized bicycle)
- (78) Other motored cycle type (minibike, motorscooter) (specify): _____

- (79) Unknown motored cycle type

Other Vehicles

- (80) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (88) Other vehicle type (specify): _____

- (99) Unknown body type

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A. Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 24, 25, 26, 27	 26 DECEL. 28, 29, 30, 31	30 SPECIFICS OTHER	31 SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	(EACH • 32) (EACH • 33) SPECIFICS OTHER (EACH • 42) (EACH • 43) SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 45	 46 45 47	(EACH • 48) SPECIFICS OTHER	(EACH • 49) SPECIFICS UNKNOWN	
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	51 (EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	(EACH • 62) (EACH • 63) SPECIFICS OTHER SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 LATERAL MOVE	65 (EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 71 INITIAL SAME DIRECTIONS	 73 72	(EACH • 74) (EACH • 75) SPECIFICS OTHER	SPECIFICS UNKNOWN
	K Turn Into Path	 77 76	 79 78	 81 80	 83 82	(EACH • 84) (EACH • 85) SPECIFICS OTHER SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 87 86	 88 89	(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI Miscellaneous	M Backing Etc.	 92 BACKING VEH.	93 OTHER VEH. OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact		

National Accident Sampling System - Crashworthiness Data System: General Vehicle Form

Page 2

OCCUPANT RELATED

16. Driver Presence in Vehicle

- (0) Driver not present
(1) Driver present
(9) Unknown

17. Number of Occupants This Vehicle

- (00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

18. Number of Occupant Forms Submitted

24. Rollover

- (0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)

- (1) Rollover, 1 quarter turn only
(2) Rollover, 2 quarter turns
(3) Rollover, 3 quarter turns
(4) Rollover, 4 or more quarter turns (specify):

- (5) Rollover - end-over-end (i.e., primarily about the lateral axis)

- (9) Rollover (overturn), details unknown

VEHICLE WEIGHT ITEMS

19. Vehicle Curb Weight

3262 Code weight to nearest 100 pounds.

- (010) Less than 1050 pounds
(135) 13,500 lbs or more
(999) Unknown

Source: _____

20. Vehicle Cargo Weight

_____ Code weight to nearest 100 pounds.

- (00) Less than 50 pounds
(97) 9,650 lbs or more
(99) Unknown

VERRIDE/UNDERIDE (THIS VEHICLE)

25. Front Override/Underide (this vehicle)

26. Rear Override/Underide (this vehicle)

- (0) No override/underide, or not an end-to-end impact

Override (see specific CDC)

- (1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

Underide (see specific CDC)

- (4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

- (7) Medium/heavy truck override

- (9) Unknown

RECONSTRUCTION DATA

21. Towed Trailing Unit

- (0) No towed unit
(1) Yes - towed trailing unit
(9) Unknown

22. Documentation of Trajectory Data for This Vehicle

- (0) No
(1) Yes

23. Post Collision Condition of Tree or Pole (for Highest Delta V)

- (0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

- (9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value

- (997) Noncollision
(998) Impact with object
(999) Unknown

27. Heading Angle for This Vehicle

28. Heading Angle for Other Vehicle

National Accident Sampling System—Crashworthiness Data System: General Vehicle Form

Page 3

29. Basis for Total Delta V (Highest) 2

Delta V Calculated

- (1) CRASH program—damage only routine
- (2) CRASH program—damage and trajectory routine
- (3) Missing vehicle algorithm

Delta V Not Calculated

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction techniques, regardless of adequacy of damage data.
- (6) All vehicles and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available.

COMPUTER GENERATED DELTA V

30. Total Delta V

Secondary Highest

____ Nearest mph

(NOTE: 00 means less than
0.5 mph)
(97) 96.5 mph and above
(99) Unknown

31. Longitudinal Component of Delta V

____ Nearest mph

(NOTE: __00 means greater than
-0.5 and less than +0.5 mph)
(± 97) ±96.5 mph and above
(__ 99) Unknown

32. Lateral Component of Delta V

____ Nearest mph

(NOTE: __00 means greater than
-0.5 and less than +0.5 mph)
(± 97) ±96.5 mph and above
(__ 99) Unknown

33. Energy Absorption

69090.4 Nearest 100 foot-lbs

(NOTE: 0000 means less than 50 Foot-Lbs)
(9997) 999,650 foot-lbs or more
(9999) Unknown

34. Confidence in Reconstruction Program Results (for Highest Delta V)

- (0) No reconstruction
- (1) Collision fits model—results appear reasonable
- (2) Collision fits model—results appear high
- (3) Collision fits model—results appear low
- (4) Borderline reconstruction—results appear reasonable

35. Type of Vehicle Inspection

- (0) No inspection
- (1) Complete inspection
- (2) Partial inspection (specify):

36. Is this an AOPS Vehicle?

- (0) No
- (1) Yes

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.



U.S. Department of Transportation
National Highway Traffic Safety
Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

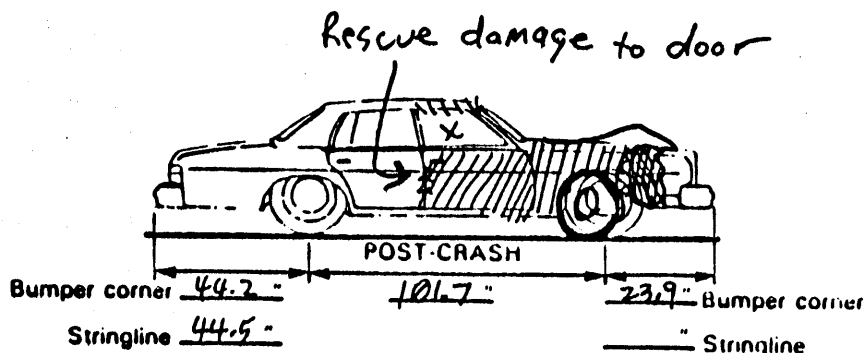
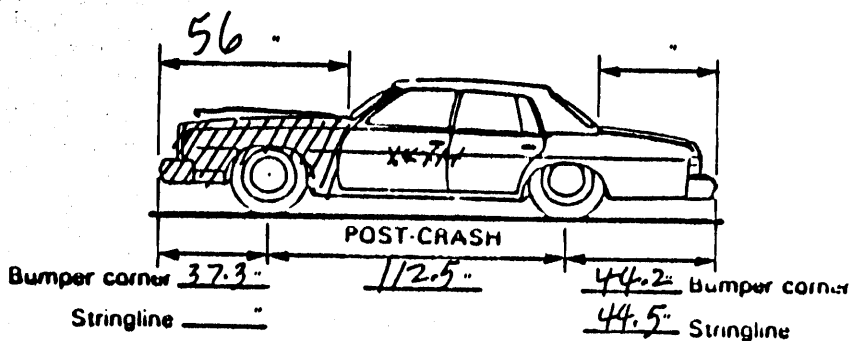
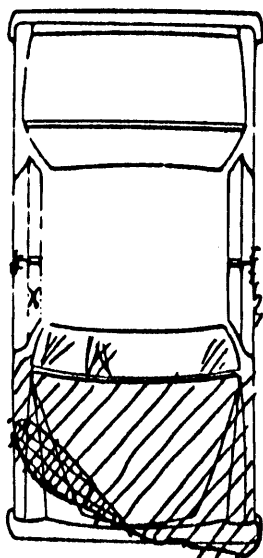
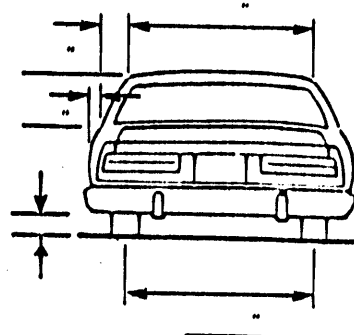
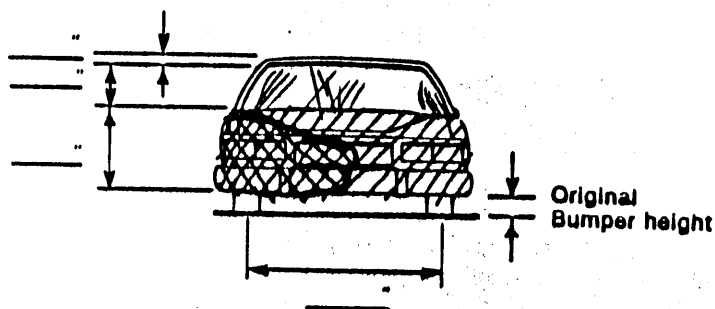
2. Case Number <u>AB00890</u>	3. Vehicle Number <u>02</u>										
VEHICLE IDENTIFICATION											
VIN <u>1G6CB518SH4</u> Model Year <u>1987</u>											
Vehicle Make (specify): <u>Cadillac</u> Vehicle Model (specify): <u>Fleetwood</u>											
LOCATOR											
Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.											
Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Maximum Crush								
<u>01</u>	<u>Begins @ RF bumper corner</u>	<u>C1 is LF bumper corner</u>	<u>C6</u>								
CRUSH PROFILE											
NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space). Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts. Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush. Use as many lines/columns as necessary to describe each damage profile.											
Specific Impact Number	Plane of C-Measurements	Direct Damage		Field L	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	±D
		Width (CDC)	Max Crush								
<u>01</u>	<u>(F) bumper</u>	<u>44.8</u>	<u>26.6</u>	<u>56.5</u>	<u>1.4</u>	<u>7.6</u>	<u>10.9</u>	<u>19.2</u>	<u>24.6</u>	<u>26.6</u>	<u>+10.6</u>
	<u>freespace</u>		<u>3.8</u>		<u>3.8</u>	<u>1.9</u>	<u>0</u>	<u>1.5</u>	<u>1.9</u>	<u>3.8</u>	
	<u>Resultant</u>		<u>22.8</u>		<u>0</u>	<u>9.7</u>	<u>10.9</u>	<u>17.7</u>	<u>22.7</u>	<u>22.8</u>	

National Accident Sampling System - Crashworthiness Data System: Exterior Vehicle Form

2

VEHICLE DAMAGE SKETCH

TIRE - WHEEL DAMAGE a. Rotation physically restricted RF <u>1</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		ORIGINAL SPECIFICATIONS Wheelbase <u>110.8</u> Overall Length <u>196.5</u> Maximum Width <u>71.7</u> Curb Weight <u>3362</u> Average Track _____ Front Overhang _____ Rear Overhang _____ Engine Size: cyl./ displ. <u>4.1 L / V8</u> Undeformed End Width <u>66</u>		WHEEL STEER ANGLES (For locked front wheels or displaced rear axles only) RF - <u>0.0</u> LF - <u>0.5</u> RR - _____ LR - _____ Within -5 degree.
TYPE OF TRANSMISSION <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic		DRIVE WHEELS <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD		
		Approximate Cargo Weight <u>0</u>		



NOTES. Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page. Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

01-30 – Vehicle Number

(31) Overturn – rollover

(32) Fire or explosion

(33) Jackknife

(34) Other intraunit damage (specify):

(35) Noncollision injury

(38) Other noncollision (specify):

(39) Noncollision – details unknown

Collision with Fixed Object

(41) Tree (≤ 4 inches in diameter)

(42) Tree (>4 inches in diameter)

(43) Shrubbery or bush

(44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

(50) Pole or post (≤ 4 inches in diameter)

(51) Pole or post (>4 but ≤ 12 inches in diameter)

(52) Pole or post (>12 inches in diameter)

(53) Pole or post (diameter unknown)

(54) Concrete traffic barrier

(55) Impact attenuator

(56) Other traffic barrier (specify):

(57) Fence

(58) Wall

(59) Building

(60) Ditch or Culvert

(61) Ground

(62) Fire hydrant

(63) Curb

(64) Bridge

(68) Other fixed object (specify):

(69) Unknown fixed object

Collision With Nonfixed Object

(71) Motor vehicle not in transport

(72) Pedestrian

(73) Cyclist or cycle

(74) Other nonmotorist or conveyance (specify):

(75) Vehicle occupant

(76) Animal

(77) Train

(78) Trailer, disconnected in transport

(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

[illegible]

National Accident Sampling System - Crashworthiness Data System: Exterior Vehicle Form

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COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>02</u>	5. <u>01</u>	6. <u>01</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>03</u>

Second Highest Delta "V"

12. <u>01</u>	13. <u>03</u>	14. <u>06</u>	15. <u>L</u>	16. <u>P</u>	17. <u>M</u>	18. <u>S</u>	19. <u>01</u>
---------------	---------------	---------------	--------------	--------------	--------------	--------------	---------------

CRUSH PROFILE

(The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. ALL MEASUREMENTS ARE IN INCHES.)

HIGHEST DELTA "V"

20. L	21. C1	C2	C3	C4	C5	C6	22. + - D
<u>057</u>	<u>00</u>	<u>06</u>	<u>11</u>	<u>18</u>	<u>23</u>	<u>23</u>	<u>+011</u>

Second Highest Delta "V"

23. L	24. C1	C2	C3	C4	C5	C6	25. + - D
---	---	---	---	---	---	---	---

26. Are CDCs Documented but Not Coded on The Automated File
(0) No
(1) Yes

0

27. Researcher's Assessment of Vehicle Disposition
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

1

28. Original Wheelbase
Code to the nearest tenth of an inch
(9999) Unknown

110.8

*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***
(I.E., GV09 = 0 OR 9), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



U.S. Department of Transportation
National Highway Traffic Safety
Administration

INTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number

AB00890

Vehicle Number

02

INTEGRITY

4. Passenger Compartment Integrity

06

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (rear)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate Or Hatch Opening

5. LF 1 6. RF 3 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening In Collision. If IV05-IV09 ≠ 2, Then Code 0.

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate, or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

GLAZING

Glazing Damage from Impact Forces

15. WS 2 16. LF 0 17. RF 6 18. LR 0 19. RR 0
20. BL 0 21. Roof 8 22. Other 0

(0) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing disintegrated from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(8) No glazing

(9) Unknown if damaged

Glazing Damage from Occupant Contact

23. WS 0 24. LF 0 25. RF 0 26. LR 0 27. RR 0
28. BL 0 29. Roof 0 30. Other 0

(0) No occupant contact to glazing or no glazing

(1) Glazing contacted by occupant but no glazing damage

(2) Glazing in place and cracked by occupant contact

(3) Glazing in place and holed by occupant contact

(4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(5) Glazing out-of-place by occupant contact and holed by occupant contact

(6) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

If No Glazing Damage And No Occupant Contact or No Glazing, Then Code IV 31 Through IV 46 As 0

Type of Window/Windshield Glazing

31. WS 1 32. LF 0 33. RF 2 34. LR 0 35. RR 0
36. BL 0 37. Roof 0 38. Other 0

(0) No glazing contact and no damage, or no glazing

(1) AS-1 - Laminated

(2) AS-2 - Tempered

(3) AS-3 - Tempered-tinted

(4) AS-14 - Glass/Plastic

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

39. WS 1 40. LF 0 41. RF 2 42. LR 0 43. RR 0
44. BL 0 45. Roof 0 46. Other 0

(0) No glazing contact and no damage, or no glazing

(1) Fixed

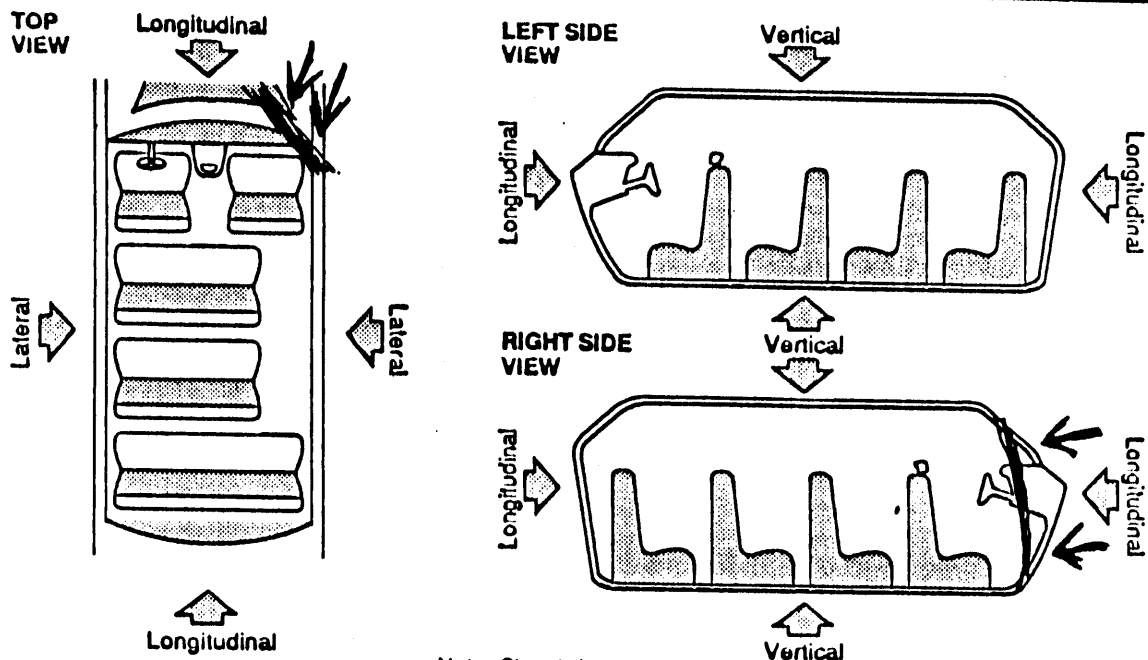
(2) Closed

(3) Partially opened

(4) Fully opened

(9) Unknown

INTRUSION WORK SHEET



LOCATION OF INTRUSION	INTRUDED COMPONENT	COMPARISON VALUE	-	INTRUDED VALUE	=	INTRUSION	DOMINANT CRUSH DIRECTION
Right Front	Toe pan	48.3	-	44.5	=	3.8	Longitudinal
Right front	"A" Pillar	34.2	-	31	=	3.2	L
Right Front	Instrument Panel	30.5	-	25.4	=	5.1	
Right Front	Side Panel	28.5	-	26.1	=	2.4	
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		

Document no more than the 15 most severe intrusions

OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV 47-IV 86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>1</u> <u>3</u>	48. <u>0</u> <u>2</u>	49. <u>2</u>	50. <u>2</u>
2nd	51. <u>1</u> <u>3</u>	52. <u>0</u> <u>5</u>	53. <u>2</u>	54. <u>2</u>
3rd	55. <u>1</u> <u>3</u>	56. <u>0</u> <u>6</u>	57. <u>2</u>	58. <u>2</u>
4th	59. <u>1</u> <u>3</u>	60. <u>2</u> <u>7</u>	61. <u>1</u>	62. <u>3</u>
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

Front Seat
 (11) Left
 (12) Middle
 (13) Right

Fourth Seat
 (41) Left
 (42) Middle
 (43) Right

Second Seat
 (21) Left
 (22) Middle
 (23) Right

(97) Catastrophic
 (98) Other enclosed area (specify): _____

Third Seat
 (31) Left
 (32) Middle
 (33) Right

(99) Unknown

INTRUDING COMPONENT**Interior Components**

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Door panel
- (12) Roof (or convertible top)
- (13) Roof side rail
- (14) Windshield
- (15) Windshield header
- (16) Window frame
- (17) Floor pan
- (18) Backlight header
- (19) Front seat back
- (20) Second seat back
- (21) Third seat back
- (22) Fourth seat back
- (23) Fifth seat back
- (24) Seat cushion
- (25) Back panel or door surface
- (26) Other interior component (specify): _____

- (27) Side panel - forward of the A-pillar
- (28) Side panel - rear of the A-pillar

Exterior Components

- (30) Hood
- (31) Outside surface of vehicle (specify): _____
- (32) Other exterior object in the environment (specify): _____
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): _____
- (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

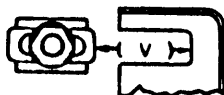
STEERING COLUMN WORKING DIAGRAMS

STEERING COLUMN COLLAPSE

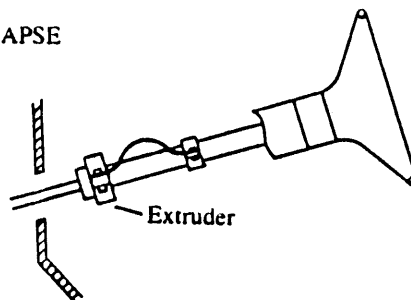
Steering Column Shear Module Movement



SHEAR CAPSULE

Left .6Right .8v = .7

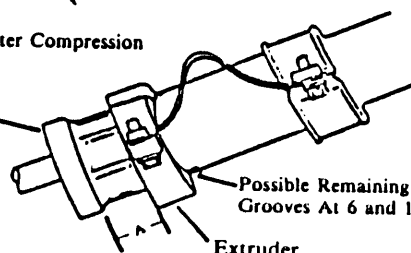
Direction and Magnitude of Steering Column Movement



Extruder

After Compression

Flare Tube



Possible Remaining Starter Grooves At 6 and 12 o'clock

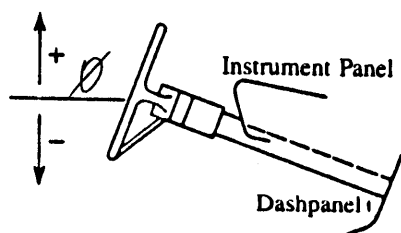
Extruder

Compression = Measurement A

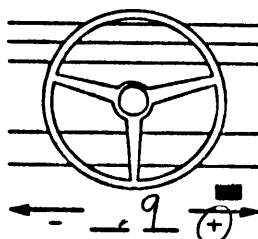
A = _____

STEERING COLUMN MOVEMENT

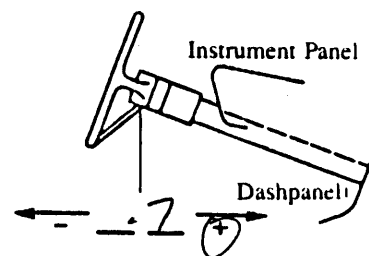
Vertical Movement



Lateral Movement



Longitudinal Movement



	COMPARISON VALUE	-	DAMAGED VALUE	=	MOVEMENT
VERTICAL	\emptyset	-	\emptyset	=	\emptyset
LATERAL	\emptyset	-	.9	=	+ .9
LONGITUDINAL	\emptyset	-	.7	=	+ .7

STEERING RIM/SPOKE DEFORMATION

COMPARISON VALUE	-	DAMAGED VALUE	=	DEFORMATION
\emptyset	-	1.1	=	1.1
	-		=	

National Accident Sampling System - Crashworthiness Data System: Interior Vehicle Form

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STEERING COLUMN**87. Steering Column Type**

- (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify): _____

(9) Unknown

If PDOF \neq 11, 12 or 1, Then Code IV88-IV91 As 96**88. Steering Column Collapse Due to Occupant Loading**

_____ Code actual measured movement to the nearest inch. See coding manual for measurement technique(s).

(00) No movement, compression, or collapse

(01-19) Actual measured value

(20) 20 inches or greater

Estimated movement from observation

(81) Less than 1 inch

(82) \geq 1 inch but $<$ 2 inches(83) \geq 2 inches but $<$ 4 inches(84) \geq 4 inches but $<$ 6 inches(85) \geq 6 inches but $<$ 8 inches

(86) Greater than or equal to 8 inches

(96) Not assessed (PDOF \neq 11, 12, 1)

(97) Apparent movement, value undetermined or cannot be measured or estimated

(98) Nonspecified type column

(99) Unknown

Direction And Magnitude of Steering Column Movement**89. Vertical Movement**+ 0 0**90. Lateral Movement**+ 0 1**91. Longitudinal Movement**+ 0 1

Code the actual measured movement to the nearest inch. See Coding Manual for measurement technique(s)

(00) No steering column movement

(\pm 01 - \pm 49) Actual measured value(\pm 50) 50 inches or greater

Estimated movement from observation

(\pm 81) \geq 1 inch but $<$ 3 inches(\pm 82) \geq 3 inches but $<$ 6 inches(\pm 83) \geq 6 inches but $<$ 12 inches(\pm 84) \geq 12 inches(96) Not assessed (PDOF \neq 11, 12, 1)(97) Apparent movement $>$ 1 inch but cannot be measured or estimated

(99) Unknown

92. Steering Rim/Spoke Deformation

_____ Code actual measured deformation to the nearest inch.

(0) No steering rim deformation

(1-5) Actual measured value

(6) 6 inches or more

(8) Observed deformation cannot be measured

(9) Unknown

93. Location of Steering Rim/Spoke Deformation

(00) No steering rim deformation

Quarter Sections

(01) Section A

(02) Section B

(03) Section C

(04) Section D



Half Sections

(05) Upper half of rim/spoke

(06) Lower half of rim/spoke

(07) Left half of rim/spoke

(08) Right half of rim/spoke



(09) Complete steering wheel collapse

(10) Undetermined location

(99) Unknown

INSTRUMENT PANEL**94. Odometer Reading**999,000

_____ miles - Code mileage to the nearest 1,000 miles

(000) No odometer

(001) Less than 1,500 miles

(300) 299,500 miles or more

(999) Unknown

Source: _____

95. Instrument Panel Damage from Occupant Contact?

(0) No

(1) Yes

(9) Unknown

96. Knee Bolsters Deformed from Occupant Contact?

(0) No

(1) Yes

(8) Not present

(9) Unknown

97. Did Glove Compartment Door Open During Collision(s)?

(0) No

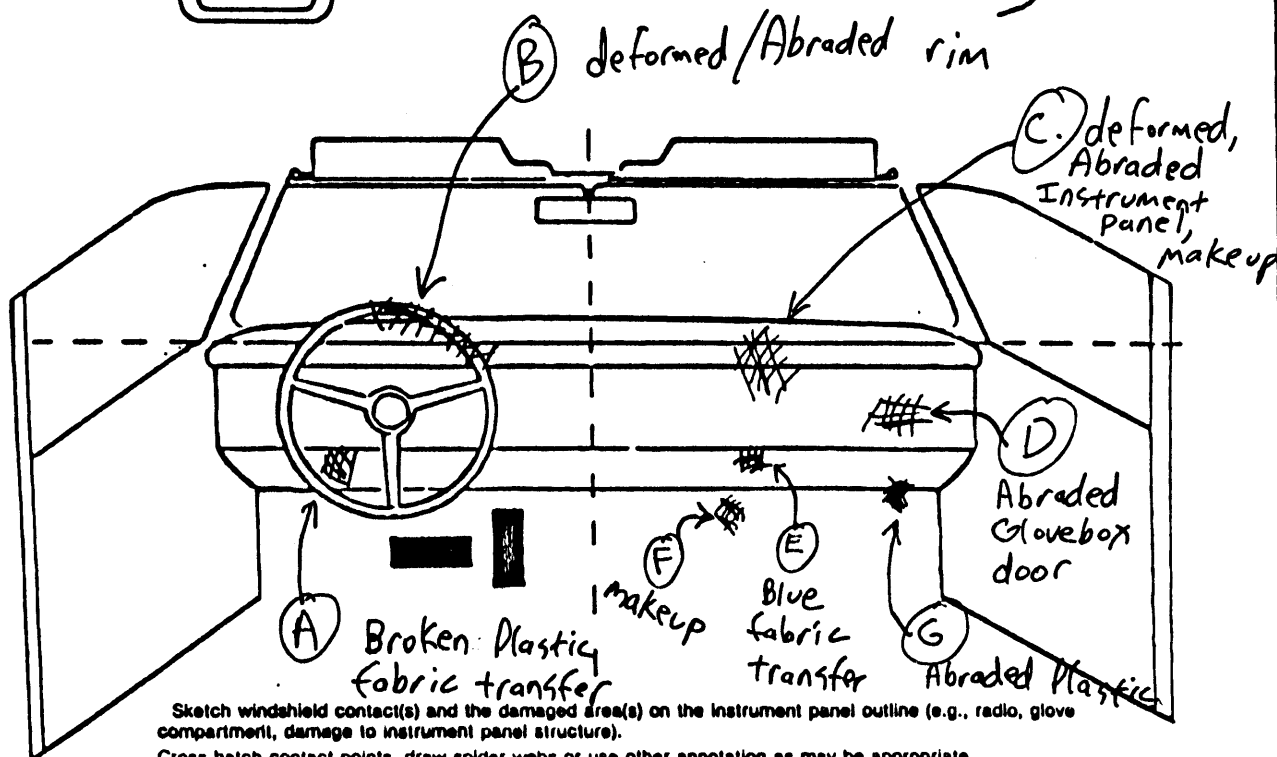
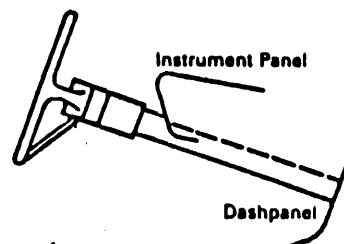
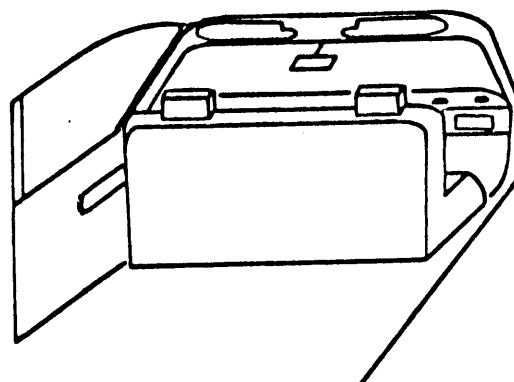
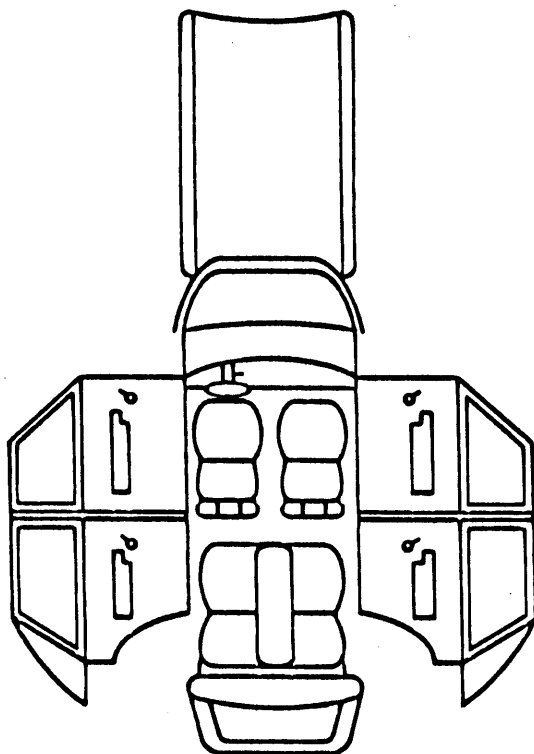
(1) Yes

(8) Not present

(9) Unknown

VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

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POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	09	01	Knee	Broken Plastic, fabric transfer	1
B	04	01	hands?	Deformed / Abraded rim	1
C	11	02	head	Deformed / Abraded inst panel / makeup	1
D	12	02	Torso?	Abraded Glovebox door	1
E	11	02	Torso?	Blue fabric transfer	1
F	11	02	Face	Makeup	1
G	11	02	hip?	Abraded plastic	1
H					
I					
J					
K					
L					
M					
N					

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify):

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify):

- (25) Left side window glass or frame

CODES FOR INTERIOR COMPONENTS

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (27) Other left side object (specify):

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify):
- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail
- (37) Other right side object (specify):

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify):
- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify):

- (47) Interior loose objects

- (48) Child safety seat (specify):

- (49) Other interior object (specify):

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

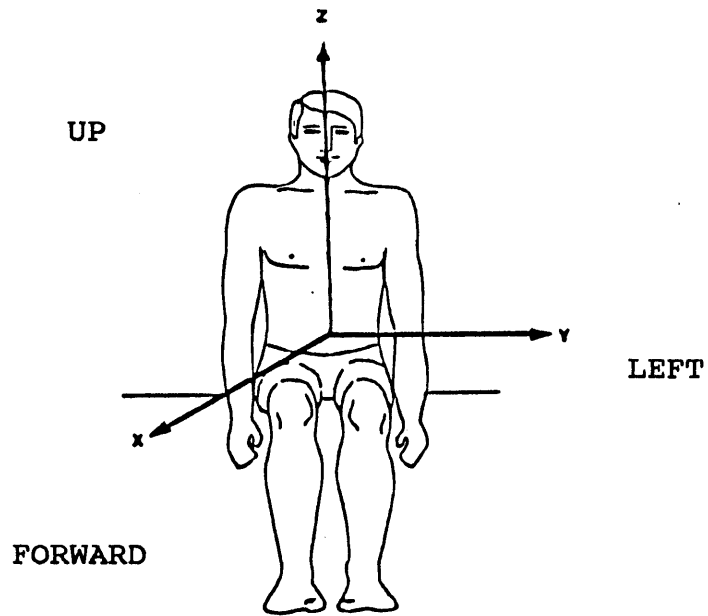
- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify):

CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain
- (2) Probable
- (3) Possible
- (4) Unknown



CASE NO. 566

VEHICLE NO. 02

CONTACT POINT	OCC. NUM.	MEASURED COORDINATES		
		forward	left	up
		X	Y	Z
A				
B				
C	02	21	3.5	10.5 - 17
D	02	20.2	-5.5	7.2
E	02	23.1	8.5	2
F	02	26	10.8	0
G	02	26	-6	0
H				
I				
J				
K				
L				
M				
N				

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MANUAL RESTRAINTS

NOTES: Encode the applicable data for each seat position in the vehicle. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page.

If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
F I R S T	Availability	4	Ø	4
	Use	99	ØØ	ØØ
	Failure Modes	9	Ø	Ø
S E C O N D	Availability	3	3	3
	Use	ØØ	ØØ	ØØ
	Failure Modes	Ø	Ø	Ø
T H I R D	Availability			
	Use			
	Failure Modes			
O T H E R	Availability			
	Use			
	Failure Modes			

Manual (Active) Belt System Availability

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available — type unknown
- (8) Other belt (specify):

(9) Unknown

Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):
- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used — type unknown

(08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat — type unknown
- (18) Other belt used with child safety seat (specify):

(99) Unknown if belt used

Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

AUTOMATIC RESTRAINTS

NOTES: Encode the data for each applicable front seat position. The attributes for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
F I R S T	Availability	Ø	Ø	Ø
	Function	Ø	Ø	Ø
	Failure	Ø	Ø	Ø

Automatic (Passive) Restraint System Availability

- (0) Not equipped/not available
- (1) Airbag
- (2) Airbag disconnected (specify): _____
- (3) Airbag not reinstalled
- (4) 2 point automatic belts
- (5) 3 point automatic belts
- (6) Automatic belts destroyed or rendered inoperative
- (9) Unknown

Automatic (Passive) Restraint Function

- (0) Not equipped/not available
- Automatic Belt**
 - (1) Automatic belt in use
 - (2) Automatic belt not in use
 - (3) Automatic belt use unknown
- Air Bag**
 - (4) Airbag deployed during accident
 - (5) Airbag deployed inadvertently just prior to accident
 - (6) Deployed, accident sequence undetermined
 - (7) Nondeployed
 - (8) Unknown if deployed
 - (9) Unknown

Did Automatic (Passive) Restraint Fail

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (9) Unknown

CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage			NONE			
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):

- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

- (00) No child safety seat

Designed for Rear Facing for This Age/Weight

- (01) Rear facing
- (02) Forward facing
- (03) Other orientation (specify):

- (04) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

- (19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

- (29) Unknown orientation

- (99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage**4. Child Safety Seat Shield Usage****5. Child Safety Seat Tether Usage**

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown if Designed with Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

National Accident Sampling System – Crashworthiness Data System: Interior Vehicle Form

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HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attributes for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	06	06	06
	Seat Performance	1	1	1
SECOND	Head Restraint Type/Damage	0	0	0
	Seat Type	03	03	03
	Seat Performance	1	1	1
THIRD	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			

Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral – no damage
- (2) Integral – damaged during accident
- (3) Adjustable – no damage
- (4) Adjustable – damaged during accident
- (5) Add-on – no damage
- (6) Add-on – damaged during accident
- (8) Other (specify): _____
- (9) Unknown

Seat Type (This Occupant Position)

- (00) No seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., van type)
- (09) Other seat type (specify): _____
- (99) Unknown

Seat Performance (This Occupant Position)

- (0) No seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks failed
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): _____

- (7) Combination of above (specify): _____
- (8) Other (specify): _____

- (9) Unknown

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE (I.E. UNUSUAL OCCUPANT CONTACT PATTERN)

EJECTION/ENTRAPMENT DATA

Complete the following if the researcher has any indications that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

EJECTION No [☒] Yes []

Describe indications of ejection and body parts involved in partial ejection(s):

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

Ejection

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

Ejection Area

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

(7) Roof

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown**Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

(5) Integral structure

- (8) Other medium (specify):

(9) Unknown**Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

ENTRAPMENT No [☒] Yes []

Describe entrapment mechanism: _____

Component(s): _____

(Note in vehicle interior diagram)



OCCUPANT ASSESSMENT FORM

2. Case Number—

AB00890

3. Vehicle Number

02

4. Occupant Number

01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

39

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

2

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

99

Code actual height to the nearest inch.

(99) Unknown

8. Occupant's Weight

999

Code actual weight to the nearest pound.

(999) Unknown

9. Occupant's Role

1

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

11

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

(1) Abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

(0) No ejection

(1) Complete ejection

(2) Partial ejection

(3) Ejection, unknown degree

(9) Unknown

13. Ejection Area

(0) No ejection

(1) Windshield

(2) Left front

(3) Right front

(4) Left rear

(5) Right rear

(6) Rear

(7) Roof

(8) Other area (e.g., back of pickup, etc.)

(specify):

(9) Unknown

14. Ejection Medium

(0) No ejection

(1) Door/hatch/tailgate

(2) Nonfixed roof structure

(3) Fixed glazing

(4) Nonfixed glazing (specify):

(5) Integral structure

(8) Other medium (specify):

(9) Unknown

15. Medium Status (Immediately Prior to Impact)

(0) No ejection

(1) Open

(2) Closed

(3) Integral structure

(9) Unknown

16. Entrapment

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

(0) Not entrapped

(1) Entrapped

(9) Unknown

National Accident Sampling System - Crashworthiness Data System: Occupant Assessment Form

Page 2

RESTRAINT SYSTEM AND SEAT EVALUATION**17. Manual (Active) Belt System Availability** 4

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown
- (8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 99

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 9

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 9

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

- (6) Broken retractor
- (7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Automatic (Passive) Restraint System Availability 0

- (0) Not equipped/not available
- (1) Airbag
- (2) Airbag disconnected (specify): _____

- (3) Airbag not reinstalled
- (4) 2 point automatic belts
- (5) 3 point automatic belts
- (6) Automatic belts destroyed or rendered inoperative
- (9) Unknown

22. Automatic (Passive) Restraint Function 0

- (0) Not equipped/not available

Automatic Belt

- (1) Automatic belt in use
- (2) Automatic belt not in use
- (3) Automatic belt use unknown

Air Bag

- (4) Airbag deployed during accident
- (5) Airbag deployed inadvertently just prior to accident
- (6) Deployed, accident sequence undetermined
- (7) Nondeployed
- (8) Unknown if deployed
- (9) Unknown

23. Did Automatic (Passive) Restraint Fail? 0

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____

(9) Unknown

24. Police Reported Restraint Use 4

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

- (8) Restrained, type unknown
- (9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____

(9) Unknown

National Accident Sampling System—Crashworthiness Data System: Occupant Assessment Form

Page 3

26. Seat Type (This Occupant Position) 06
- (00) Occupant not seated or no seat
 - (01) Bucket
 - (02) Bucket with folding back
 - (03) Bench
 - (04) Bench with separate back cushions
 - (05) Bench with folding back(s)
 - (06) Split bench with separate back cushions
 - (07) Split bench with folding back(s)
 - (08) Pedestal (i.e., van type)
 - (09) Other seat type (specify):

(99) Unknown

27. Seat Performance (This Occupant Position) 1
- (0) Occupant not seated or no seat
 - (1) No seat performance failure(s)
 - (2) Seat adjusters failed
 - (3) Seat back folding locks failed
 - (4) Seat track/anchors failed
 - (5) Deformed by impact of occupant
 - (6) Deformed by passenger compartment intrusion (specify):

(7) Combination of above (specify):

(8) Other (specify):

(9) Unknown

CHILD SAFETY SEAT

28. Child Safety Seat Make/Model 000
- (000) No child safety seat
- Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
- (997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

29. Type of Child Safety Seat 0
- (0) No child safety seat
 - (1) Infant seat
 - (2) Toddler seat
 - (3) Convertible seat
 - (4) Booster seat
 - (7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

30. Child Safety Seat Orientation 00
- (00) No child safety seat

Designed for Rear Facing for This Age/Weight

- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

31. Child Safety Seat Harness Usage 00

32. Child Safety Seat Shield Usage 00

33. Child Safety Seat Tether Usage 00

Note: Options below applicable to Variables OA31-OA33.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

National Accident Sampling System - Crashworthiness Data System: Occupant Assessment Form

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INJURY CONSEQUENCES**34. Injury Severity (Police Rating)** 2

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

35. Treatment - Mortality 9

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease

Nonfatal

- (3) Hospitalized
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (8) Treatment - other (specify): _____

(9) Unknown

36. Type of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify): _____

(9) Unknown

37. Hospital stay 99

- _____ Code number of days (up through 60) that the occupant stayed in the hospital
- (00) Not hospitalized
 - (61) 61 days or more
 - (99) Unknown

38. Working Days Lost 99

- _____ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
 - (61) 61 days or more
 - (62) Fatally injured
 - (97) Not working prior to accident
 - (99) Unknown

39. Time to Death 00

- _____ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)
- (00) Not fatal
 - (96) Fatal - ruled disease
 - (99) Unknown

40. 1st Medically Reported Cause of Death 00**41. 2nd Medically Reported Cause of Death** 00**42. 3rd Medically Reported Cause of Death** 00

- _____ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
- (00) Not fatal or no additional causes
 - (97) Other result (specify): _____

(99) Unknown

43. Number of Recorded Injuries for This Occupant 97

- _____ Code the actual number of injuries recorded for this occupant.
- (00) No recorded injuries
 - (97) Injured, details unknown
 - (99) Unknown if injured

UPDATE CANDIDATE

NO [☒]

YES []

*** STOP HERE ***

IF THERE ARE NO RECORDED INJURIES

(I.E., OA43=00, 97, 99)



OCCUPANT ASSESSMENT FORM

2. Case Number--

AB00890

3. Vehicle Number

02

4. Occupant Number

02

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

43

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

2

(1) Male

(2) Female

(9) Unknown

7. Occupant's Height

65

Code actual height to the nearest inch.

(99) Unknown

8. Occupant's Weight

132

Code actual weight to the nearest pound.

(999) Unknown

9. Occupant's Role

2

(1) Driver

(2) Passenger

(9) Unknown

10. Occupant's Seat Position

13

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

(1) Abnormal posture (specify):

(9) Unknown

EJECTION/ENTRAPMENT

12. Ejection

(0) No ejection

(1) Complete ejection

(2) Partial ejection

(3) Ejection, unknown degree

(9) Unknown

13. Ejection Area

(0) No ejection

(1) Windshield

(2) Left front

(3) Right front

(4) Left rear

(5) Right rear

(6) Rear

(7) Roof

(8) Other area (e.g., back of pickup, etc.)

(specify):

(9) Unknown

14. Ejection Medium

(0) No ejection

(1) Door/hatch/tailgate

(2) Nonfixed roof structure

(3) Fixed glazing

(4) Nonfixed glazing (specify):

(5) Integral structure

(8) Other medium (specify):

(9) Unknown

15. Medium Status (Immediately Prior to Impact)

(0) No ejection

(1) Open

(2) Closed

(3) Integral structure

(9) Unknown

16. Entrapment

(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

(0) Not entrapped

(1) Entrapped

(9) Unknown

National Accident Sampling System—Crashworthiness Data System: Occupant Assessment Form

Page 2

RESTRAINT SYSTEM AND SEAT EVALUATION**17. Manual (Active) Belt System Availability** 4

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown
- (8) Other belt (specify): _____

(9) Unknown

18. Manual (Active) Belt System Use 0

(00) None used, not available, or belt removed/destroyed

(01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify): _____

(99) Unknown if belt used

19. Proper Use of Manual (Active) Belts 0

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

(8) Other improper use of manual belt system (specify): _____

(9) Unknown

20. Manual (Active) Belt Failure Modes During Accident 0

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

- (6) Broken retractor
- (7) Combination of above (specify): _____

(8) Other manual belt failure (specify): _____

(9) Unknown

21. Automatic (Passive) Restraint System Availability 0

- (0) Not equipped/not available
- (1) Airbag
- (2) Airbag disconnected (specify): _____

- (3) Airbag not reinstalled
- (4) 2 point automatic belts
- (5) 3 point automatic belts
- (6) Automatic belts destroyed or rendered inoperative
- (9) Unknown

22. Automatic (Passive) Restraint Function 0

(0) Not equipped/not available

Automatic Belt

- (1) Automatic belt in use
- (2) Automatic belt not in use
- (3) Automatic belt use unknown

Air Bag

- (4) Airbag deployed during accident
- (5) Airbag deployed inadvertently just prior to accident
- (6) Deployed, accident sequence undetermined
- (7) Nondeployed
- (8) Unknown if deployed
- (9) Unknown

23. Did Automatic (Passive) Restraint Fail? 0

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____

(9) Unknown

24. Police Reported Restraint Use 0

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____

- (8) Restrained, type unknown
- (9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints
- (1) Integral—no damage
- (2) Integral—damaged during accident
- (3) Adjustable—no damage
- (4) Adjustable—damaged during accident
- (5) Add-on—no damage
- (6) Add-on—damaged during accident
- (8) Other (specify): _____

(9) Unknown

National Accident Sampling System—Crashworthiness Data System: Occupant Assessment Form

Page 3

- 26. Seat Type (This Occupant Position)** 06
- (00) Occupant not seated or no seat
 - (01) Bucket
 - (02) Bucket with folding back
 - (03) Bench
 - (04) Bench with separate back cushions
 - (05) Bench with folding back(s)
 - (06) Split bench with separate back cushions
 - (07) Split bench with folding back(s)
 - (08) Pedestal (i.e., van type)
 - (09) Other seat type (specify):

(99) Unknown

- 27. Seat Performance (This Occupant Position)** 1
- (0) Occupant not seated or no seat
 - (1) No seat performance failure(s)
 - (2) Seat adjusters failed
 - (3) Seat back folding locks failed
 - (4) Seat track/anchors failed
 - (5) Deformed by impact of occupant
 - (6) Deformed by passenger compartment intrusion (specify):

(7) Combination of above (specify):

(8) Other (specify):

(9) Unknown

CHILD SAFETY SEAT

- 28. Child Safety Seat Make/Model** 000
- (000) No child safety seat
- Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
- (997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

- 29. Type of Child Safety Seat** 0
- (0) No child safety seat
 - (1) Infant seat
 - (2) Toddler seat
 - (3) Convertible seat
 - (4) Booster seat
 - (7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

- 30. Child Safety Seat Orientation** 00
- (00) No child safety seat

Designed for Rear Facing for This Age/Weight

- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):

(09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):

(19) Unknown orientation

Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

- 31. Child Safety Seat Harness Usage** 00

- 32. Child Safety Seat Shield Usage** 00

- 33. Child Safety Seat Tether Usage** 00
- Note: Options below applicable to Variables OA31-OA33.

(00) No child safety seat

Not Designed with
Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed with Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed with Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

National Accident Sampling System—Crashworthiness Data System: Occupant Assessment Form

Page 4

INJURY CONSEQUENCES**34. Injury Severity (Police Rating)**

- (0) O—No injury
 (1) C—Possible injury
 (2) B—Nonincapacitating injury
 (3) A—Incapacitating injury
 (4) K—Killed
 (5) U—Injury, severity unknown
 (6) Died prior to accident
 (9) Unknown

4**35. Treatment—Mortality**

- (0) No treatment
 (1) Fatal
 (2) Fatal—ruled disease

3**Nonfatal**

- (3) Hospitalized
 (4) Transported and released
 (5) Treatment at scene—nontransported
 (6) Treatment later
 (8) Treatment—other (specify):

- (9) Unknown

36. Type of Medical Facility (for Initial Treatment)

- (0) Not treated at a medical facility
 (1) Trauma center
 (2) Hospital
 (3) Medical clinic
 (4) Physician's office
 (5) Treatment later at medical facility
 (8) Other (specify):

- (9) Unknown

37. Hospital stay

- _____ Code number of days (up through 60)
 that the occupant stayed in the hospital
 (00) Not hospitalized
 (61) 61 days or more
 (99) Unknown

9 9**38. Working Days Lost**

- _____ Code the number of days
 (up through 60) that the occupant
 lost from work due to the accident
 (00) No working days lost
 (61) 61 days or more
 (62) Fatally injured
 (97) Not working prior to accident
 (99) Unknown

9 9**39. Time to Death**

- _____ Code number of hours from time of
 accident to time of death up through 24
 hours. If time of death is greater than 24
 hours, code number of days. (Note: 1 day =
 31, 2 days = 32, ... n days = 30 + n up through
 30 days = 60)
 (00) Not fatal
 (96) Fatal—ruled disease
 (99) Unknown

0 0**40. 1st Medically Reported Cause of Death**0 0**41. 2nd Medically Reported Cause of Death**0 0**42. 3rd Medically Reported Cause of Death**0 0

- _____ Code the Occupant Injury from line
 number(s) for the medically reported
 injury(s) which reportedly contributed to
 this occupant's death
 (00) Not fatal or no additional causes
 (97) Other result (specify):

- (99) Unknown

**43. Number of Recorded Injuries for
This Occupant**

- _____ Code the actual number of
 injuries recorded for this occupant.
 (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

0 4

UPDATE CANDIDATE

NO [☒] YES []

*** STOP HERE ***

IF THERE ARE NO RECORDED INJURIES

(I.E., OA43=00, 97, 99)



U.S. Department of Transportation
National Highway Traffic Safety
Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number—

AB00890

Vehicle Number

02

Occupant Number

02

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	O.I.C.—A.I.S.				Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No.	
		Body Region	Aspect	Lesion	System Organ					A.I.S. Severity
1st	5. 2	6. H	7. A	8. C	9. B	10. 3	11. 11	12. 1	13. 1	14. 01
2nd	15. 2	16. H	17. A	18. U	19. B	20. 4	21. 11	22. 1	23. 1	24. 01
3rd	25. 2	26. H	27. A	28. U	29. B	30. 3	31. 11	32. 1	33. 1	34. 01
4th	35. 2	36. F	37. S	38. L	39. I	40. 1	41. 11	42. 1	43. 1	44. 01
5th	45. —	46. —	47. —	48. —	49. —	50. —	51. —	52. —	53. —	54. —
6th	55. —	56. —	57. —	58. —	59. —	60. —	61. —	62. —	63. —	64. —
7th	65. —	66. —	67. —	68. —	69. —	70. —	71. —	72. —	73. —	74. —
8th	75. —	76. —	77. —	78. —	79. —	80. —	81. —	82. —	83. —	84. —
9th	85. —	86. —	87. —	88. —	89. —	90. —	91. —	92. —	93. —	94. —
10th	95. —	96. —	97. —	98. —	99. —	100. —	101. —	102. —	103. —	104. —

SOURCE OF INJURY DATA**OFFICIAL**

- (1) Autopsy records with or without hospital medical records
- (2) Hospital medical records other than emergency room (eg. discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): _____
- (9) Police

INJURY SOURCE**FRONT**

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub/spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add-on equipment (e.g., CB, tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify): _____

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify): _____
- (25) Left side window glass or frame

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, or roof side rail

- (27) Other left side object (specify): _____

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify): _____

- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, roof side rail

- (37) Other right side object (specify): _____

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing/buckle
- (42) Belt restraint B-pillar attachment point
- (43) Other restraint system component (specify): _____

- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify): _____

- (47) Interior loose objects
- (48) Child safety seat (specify): _____

- (49) Other interior object (specify): _____

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Fuel controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc.
- (62) Other rear object (specify): _____

EXTENSION OF OCCUPANT'S VEHICLE

- (66) Hood
- (68) Outside hardware (e.g., outside mirror, antenna)
- (67) Other exterior surface or tires (specify): _____

- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify): _____

- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify): _____

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify): _____

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify): _____

- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify): _____

- (97) Injured, unknown source

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION**O.I.C. Body Region**

- (M) Abdomen
- (Q) Ankle-foot
- (A) Arm (upper)
- (B) Back-thoracolumbar spine
- (C) Chest
- (E) Elbow
- (F) Face
- (H) Forearm
- (H) Head-skull
- (U) Injured, unknown region
- (K) Knee
- (L) Leg (lower)
- (Y) Lower limb(s) (whole or unknown part)
- (N) Neck-cervical spine
- (P) Pelvic-hip
- (S) Shoulder
- (T) Thigh
- (U) Upper limb(s) (whole or unknown part)
- (O) Whole body

(W) Wrist-hand**Aspect of Injury**

- (A) Anterior-front
- (B) Bilateral (if fracture only)
- (C) Central
- (I) Inferior-lower
- (U) Injured, unknown aspect
- (L) Left
- (P) Posterior-back
- (R) Right
- (S) Superior-upper
- (W) Whole region

Lesion

- (A) Abrasion
- (M) Amputation
- (V) Avulsion
- (B) Burn
- (K) Contusion
- (C) Contusion
- (N) Crush

(G) Detachment, separation

- (D) Dislocation
- (F) Fracture
- (Z) Fracture and dislocation
- (U) Injured, unknown lesion
- (L) Laceration
- (O) Other
- (P) Perforation, puncture
- (R) Rupture
- (S) Sprain
- (T) Strain
- (E) Total severance, transection

System/Organ

- (W) All systems in region
- (A) Arteries-veins
- (B) Brain
- (U) Digestive
- (E) Ear
- (O) Eye
- (H) Heart
- (U) Injured, unknown system

(I) Integumentary

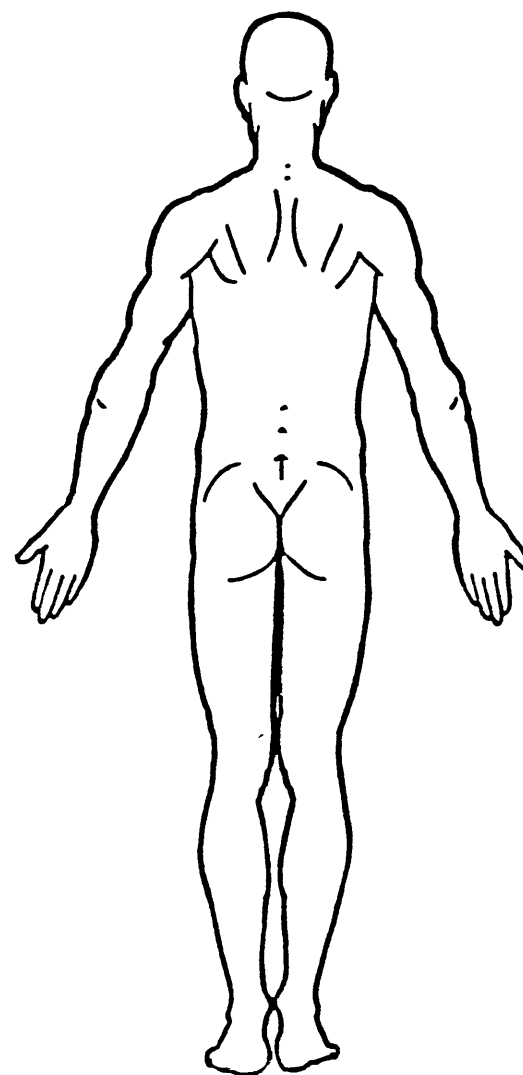
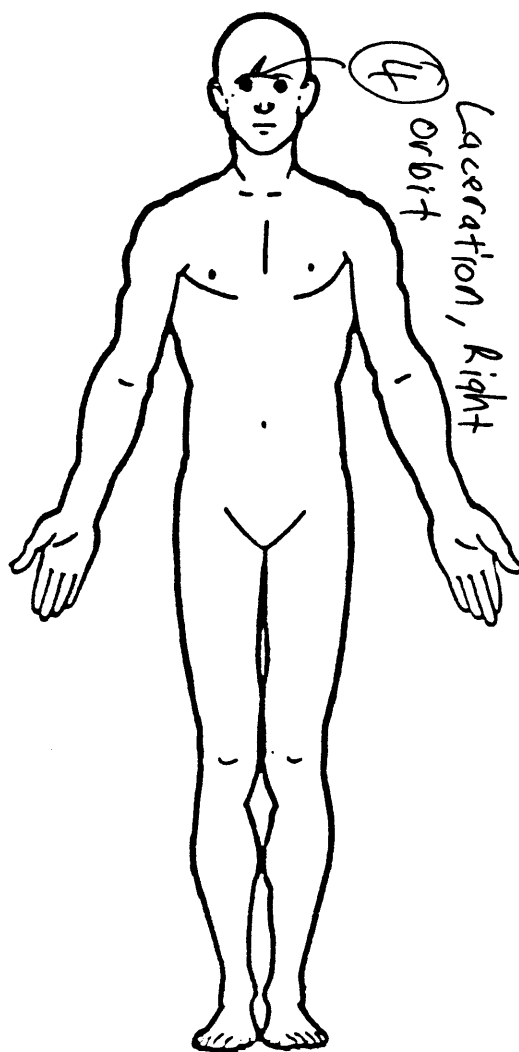
- (J) Joints
- (K) Kidneys
- (L) Liver
- (M) Muscles
- (N) Nervous system
- (P) Pulmonary-lungs
- (R) Respiratory
- (S) Skeletal
- (C) Spinal cord
- (O) Spleen
- (T) Thyroid, other endocrine gland
- (G) Urinary
- (V) Vascular

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (unrecoverable)
- (7) Injured, unknown severity

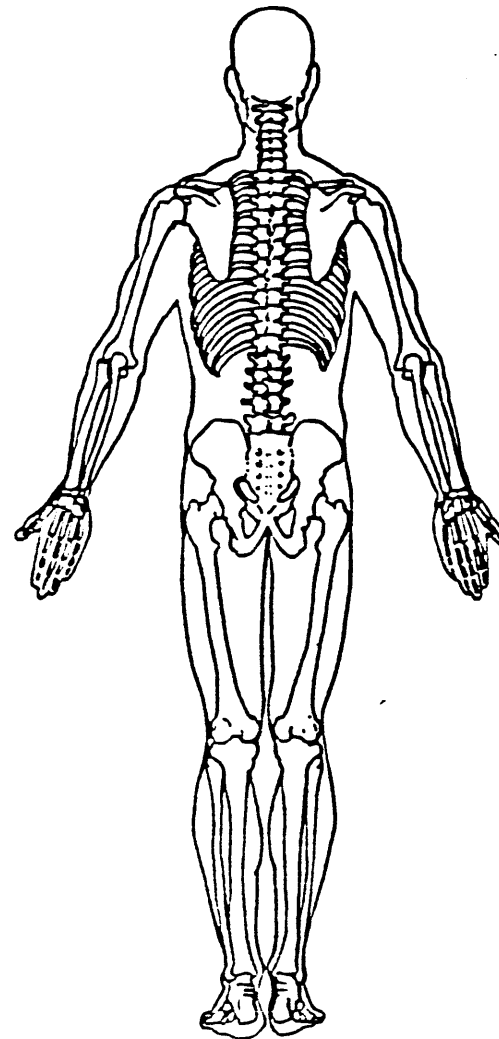
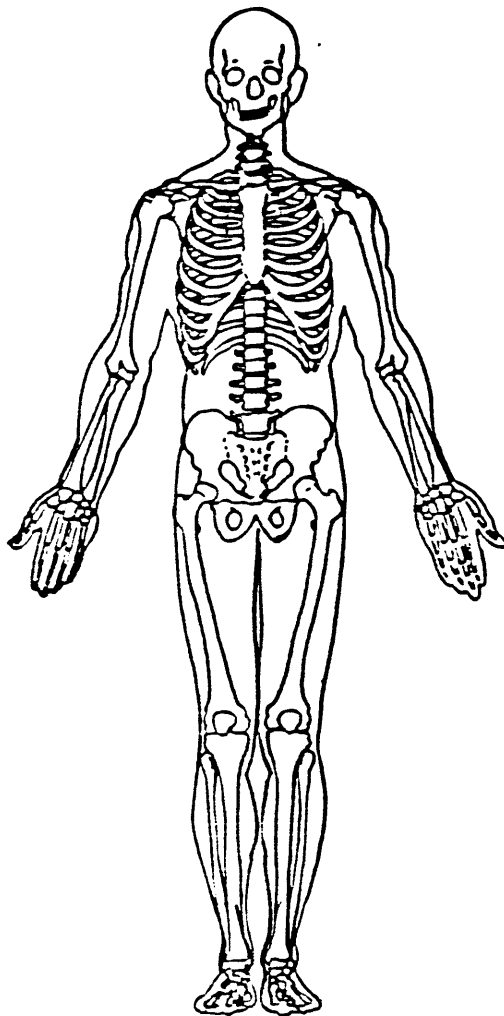
OFFICIAL INJURY DATA - SOFT TISSUE INJURIES

Indicate the *Location, Lesion, Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA – SKELETAL INJURIES

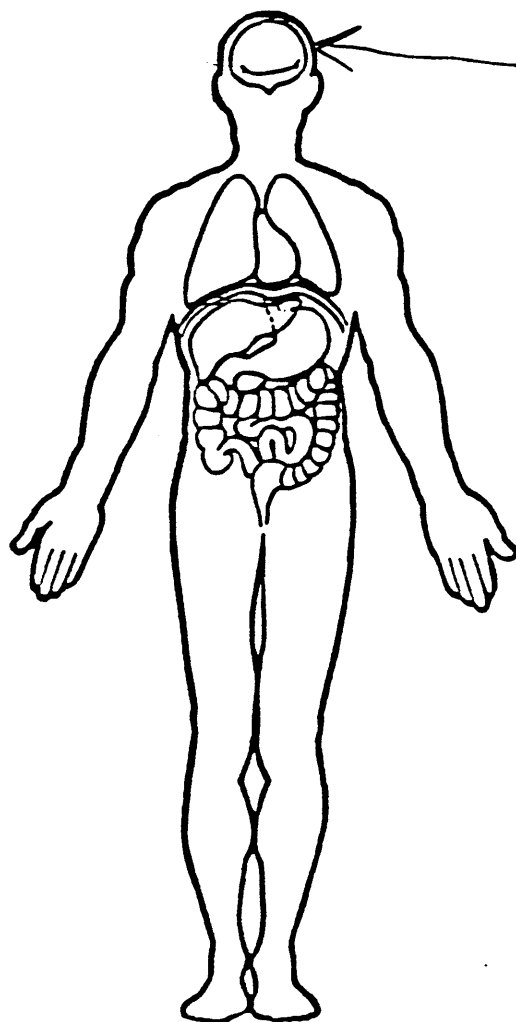
Indicate the *Location*, *Lesion*, *Detail* (size, depth, fracture type, head injury clinical signs and neurological deficits), and *Source* of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



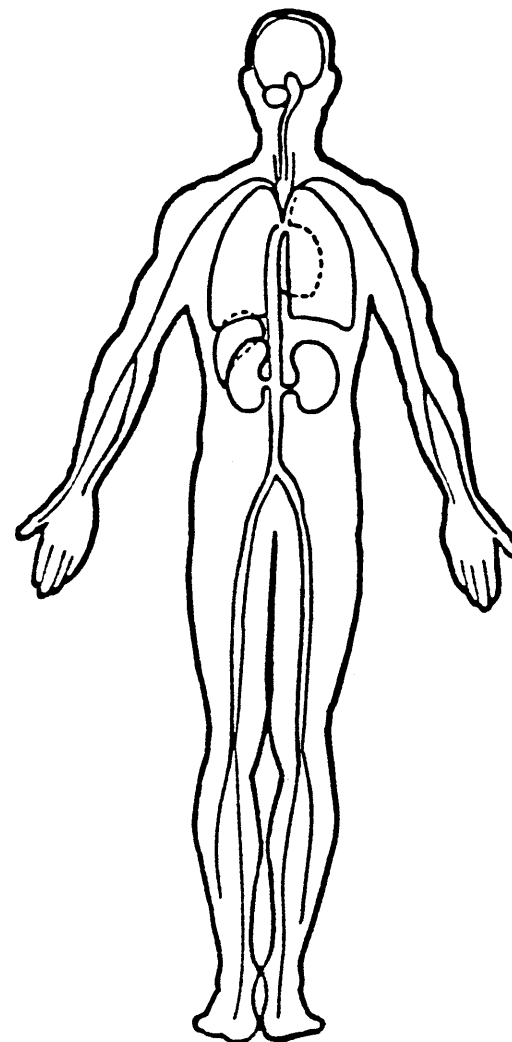
OFFICIAL INJURY DATA - INTERNAL INJURIES

BEST AVAILABLE COPY

Indicate the Location, Lesion, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



1. Left, Frontal Contusion
2. Left, Frontal, Intra-Cerebral Hematoma
3. Left, Frontal, Sub-arachnoid Hemorrhage < 100 cc





INTERVIEW FORM

Case Number -

AB00890

Interviewee(s) Role(s) or Name(s)

Driver V2

Vehicle Number

02

Review the Interview Cue Sheet prior to conducting interview(s) to ensure the acquisition of all pertinent data.

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

Driver V2 refused interview due to pending litigation. However, the following was obtained from her in a phone interview:

I was run off the road by another car.

SPECIFIC QUESTIONS

Did the other car hit you? - I don't know

Key to Researcher: Have you obtained the following through the interviewee(s) description and specific questions?

- | | | |
|---|---|--|
| <input type="checkbox"/> PRE-CRASH, AT IMPACT vehicle travel/driver intention | <input type="checkbox"/> Speed estimates (precrash/at impact) | <input type="checkbox"/> Previous vehicle damage |
| <input type="checkbox"/> Direction of travel | <input type="checkbox"/> Post-impact trajectory | <input type="checkbox"/> Glazing type |
| <input type="checkbox"/> Avoidance maneuvers | <input type="checkbox"/> Door status (precrash/postcrash) | <input type="checkbox"/> Vehicle glazing status |
| <input type="checkbox"/> Impact description/orientation | <input type="checkbox"/> Final rest position | <input type="checkbox"/> PAR clarifications |
| | | <input type="checkbox"/> Glove box status |

Cargo? No ☐ Yes ☐ Interviewee's Estimated Cargo Weight _____

Description of Cargo _____

Present Location of Vehicle (if not yet inspected)? _____

National Accident Sampling System – Crashworthiness Data System: Interview Form

Page 2

OCCUPANT DATA

Enter the occupant's seat position in the first row and complete the column below it using the information from the interviewee(s).

SEAT POSITION				
AGE/SEX				
HEIGHT (IN.)				
WEIGHT (LBS.)				
POSTURE				
EJECTED? [] No [] Yes				
DESCRIBE THE EJECTION				
ENTRAPPED? [] No [] Yes				
DESCRIBE ENTRAPMENT				
TYPE OF RESTRAINT AVAILABLE?				
HOW WERE THE BELTS WORN?				
DESCRIBE ANY RESTRAINT FAILURE MODE				
TYPE OF TREATMENT				
DAYS IN HOSPITAL?				
NO. OF LOST WORK DAYS?				

PSU Number _____

Case Number—Stratum

AB00890

Vehicle Number

02

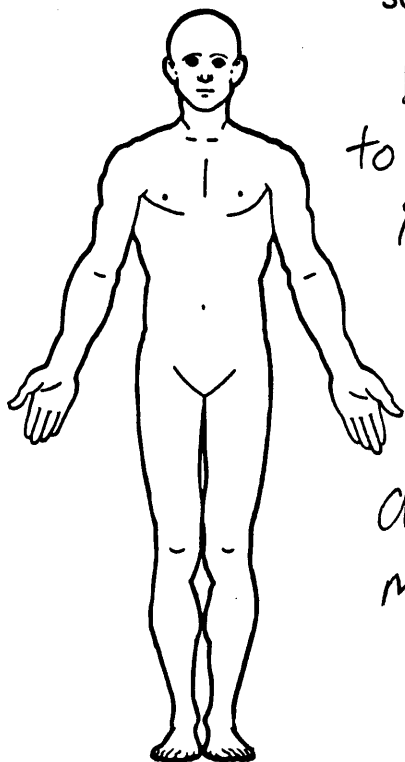
Occupant Number

01

INJURY DATA FROM INTERVIEWEE(S)

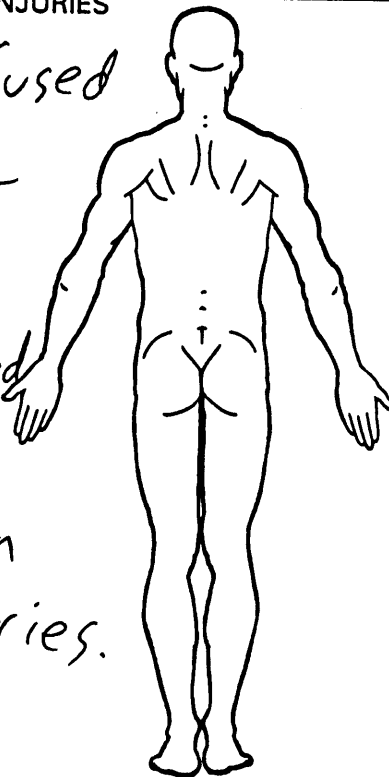
Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): Driver v2

SOFT TISSUE/INTERNAL INJURIES

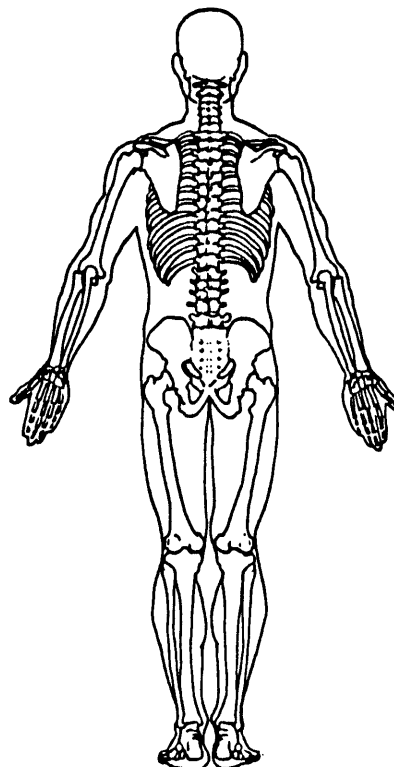
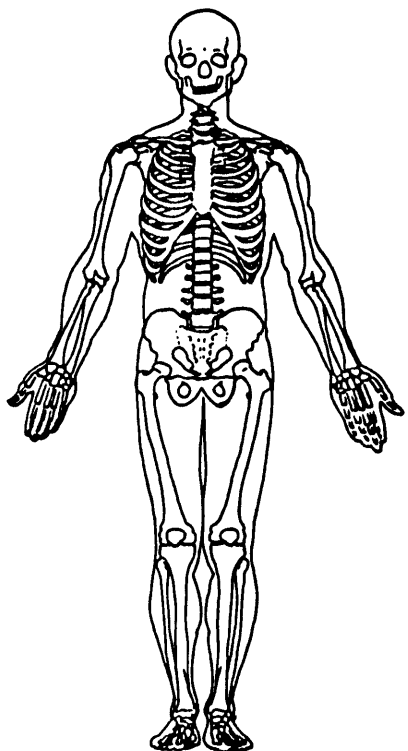


Driver refused
to describe
injuries.

She stated
that she
did sustain
minor injuries.

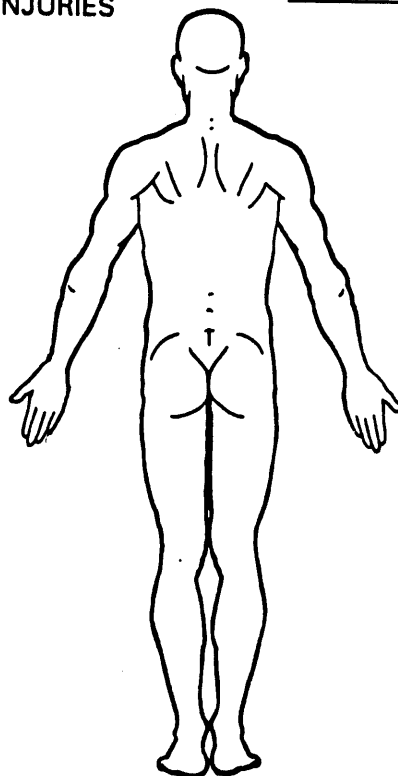
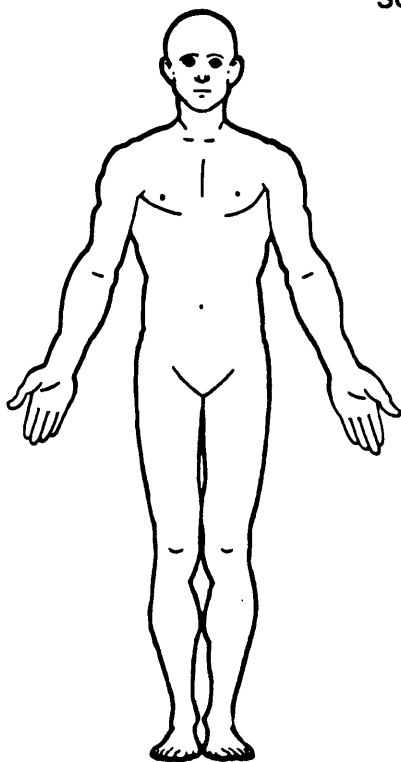
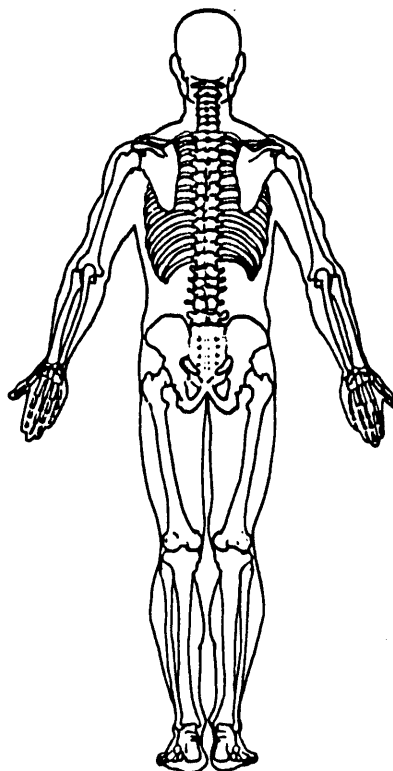
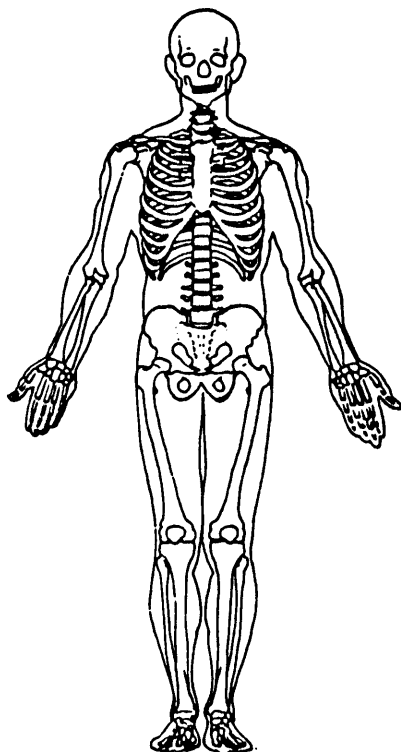


SKELETAL INJURIES



The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

PSU Number _____ Case Number—Stratum _____ Vehicle Number _____ Occupant Number _____

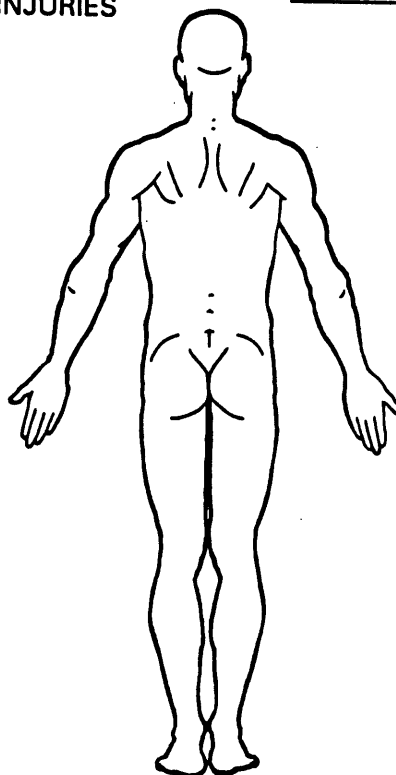
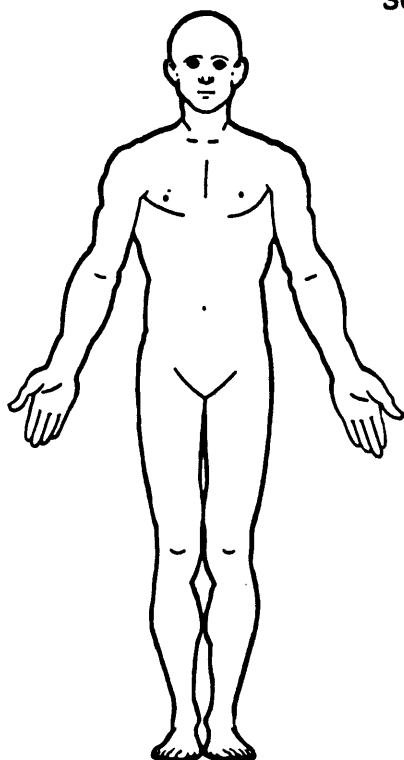
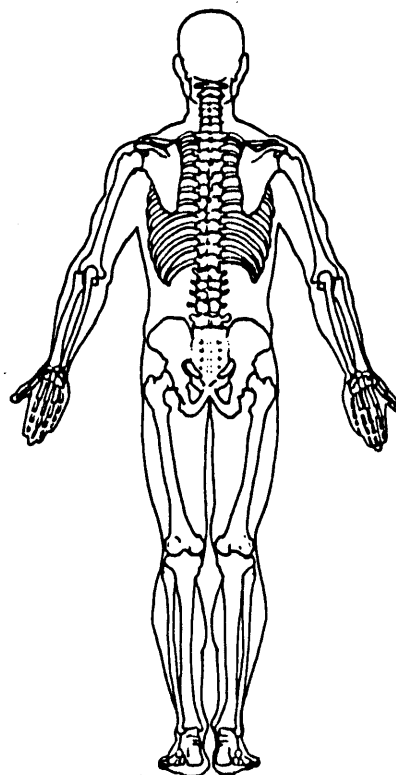
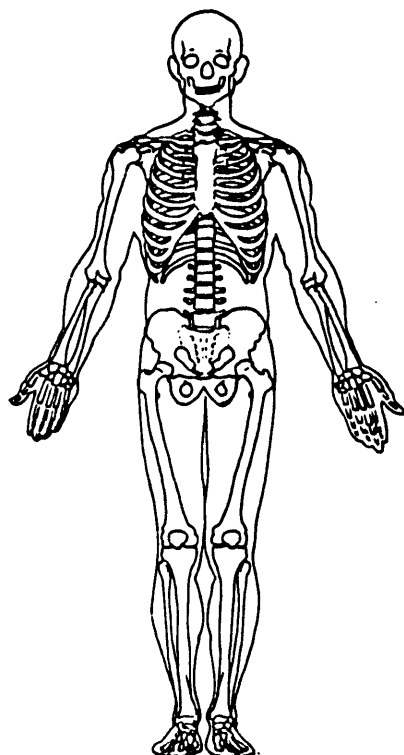
INJURY DATA FROM INTERVIEWEE(S)Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____**SOFT TISSUE/INTERNAL INJURIES****SKELETAL INJURIES**

The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

National Accident Sampling System—Crashworthiness Data System: Interview Form

Page 5

PSU Number _____ Case Number—Stratum _____ Vehicle Number _____ Occupant Number _____

INJURY DATA FROM INTERVIEWEE(S)Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____**SOFT TISSUE/INTERNAL INJURIES****SKELETAL INJURIES**

The space provided on the back of this page may be used to document injuries noted by the interviewee(s).

ACCIDENT SUMMARY

ACCIDENT DATE Summer-weekday

POLICE INVESTIGATED (1,2,9)*

City County

GENERAL LOCALITY

- (1) Freeway, Limited Access
- (2) Urban (City)
- (3) Urban-Rural (mixed)
- (4) Rural, Fields

CONFIGURATION (First Harm)

- (0) Struck Object or Pedestrian
- (1) Rear-End
- (2) Head-On
- (3) Rear-to-Rear
- (4) Angle
- (5) Sideswipe-Same Direction
- (6) Sideswipe-Opposite Direct.
- (7) NonColl:eg Fell from Veh
- (8) NonImpact Deployment
- (9) Unknown

FIRE INVOLVED (0) None

- (1) AirBag Vehicle
- (2) Other Vehicle
- (3) Both Vehicles
- (9) Unknown

NUMBER: VEHICLES INVOLVED

(8)=8 or more
PERSONS INVOLVED

INJURED PERSONS

MAXIMUM AIS IN ACCIDENT

OTHER VEHICLE: MAXIMUM AIS

PRIME/DEPLOY IMPACT w AB VEH:
EVENT NUMBER

CDC 01-FDEW-3

TOTAL DELTA-V

Model Year, Make, Model, Body Type:

87, Cadillac, Fleetwood, 4 door

AIRBAG VEHICLE INSPECTION

DATE VEH. INSPECTED / /

REASON VEHICLE NOT INSPECTED

- (0) Not Required
 - (1) Inspection Completed
 - (2) Cannot be Located**
 - (3) Repaired or Destroyed**
 - (5) Refual or Impounded**
 - (7) Other*
- **Specify:

IMPACT DATA OBTAINED

- (0) No Data Obtained
- (1) CDC Only
- (2) Crush Profile Only
- (3) Trajectory Data Only
- (4) CDC and Crush Profile
- (5) CDC and Trajectory
- (6) Crush and Trajectory
- (7) CDC, Crush & Trajectory

BASIS OF DELTA-V

- (0) Not Computed (Unknown Why)
- (1) CRASH - Damage Only
- (2) CRASH - Damage+Trajectory
- (3) Missing Vehicle Algorithm
- (4) Yielding Object Algorithm
- (5) Unknown Basis
- (6) One Vehicle Beyond Scope
- (7) Collision Beyond Scope
- (8) Insufficient Data

VEHICLE HISTORY

HAS AIRBAG VEHICLE BEEN IN
ANY PRIOR IMPACTS (1,2,9)*

HAS ANY PRIOR MAINTENANCE/SERVICE
BEEN PERFORMED ON SYSTEM(1,2,9)*

*Describe:

AIRBAG VEHICLE: FLEET Police

VIN

MILEAGE 2,869

* (1)=Yes, (2)=No, (9)=Unknown

SYSTEM READINESS LAMP
(In Instrument Cluster)

PRE-IMPACT LAMP CONDITION

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

DRIVER'S REPORT OF
PRE-IMPACT FLASHING

- (00) No Flashing Reported
- (01) Continuous Flashing
- (02) -- >Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not App (system removed)
- (99) Unknown

PERIOD OF PRE-IMPACT FLASHING

- (0) No Flashing
- (1) Same Day as Impact
- (2) Prior Day
- (3) Prior Two Days
- (4) Prior Week
- (5) Prior Month
- (6) Over One Month
- (9) Unknown

POST-IMPACT LAMP CONDITION

- (1) Functioning/ProvedOut
- (2) Inoperative
- (9) Unknown

POST-IMPACT FLASHING

- (00) No Flashing
- (01) Continuous Flashing
- (02) -- >Number of Flashes
- (11)
- (12) Constant Light
- (19) Flashing, Unkn Number
- (88) Not Appl (removed)
- (99) Unknown

AIRBAG VEHICLE
FIRST HARMFUL EVENT

13

- (01) Fire or explosion
- (02) Immersion
- (03) Gas Inhalation
- (04) Fell from vehicle
- (05) Injured in vehicle
- (06) Other noncollision (specify):
- (07) Overturn
- (08) Jackknife with intraunit damage
Collision With:
- (09) Pedestrian
- (10) Pedalcyclist
- (11) Railway train
- (12) Animal
- (13) Motor vehicle in transport (same roadway)
- (14) Motor vehicle in transport (other roadway)
- (15) Parked motor vehicle
- (16) Other type nonmotorist (specify):
- (17) Thrown or falling object
- (18) Boulder
- Collision with Fixed Object:
- (20) Building
- (21) Impact attenuator/Crash Cushion
- (22) Bridge pier or abutment
- (23) Bridge parapet end
- (24) Bridge rail
- (25) Guardrail
- (26) Concrete traffic barrier
- (27) Median barrier
- (28) Other longitudinal barrier (specify):
- (29) Highway/Traffic sign post
- (30) Overhead sign support
- (31) Luminaire/Light support
- (32) Utility pole
- (33) Other post, pole, or support (specify):
- (34) Culvert
- (35) Curb
- (36) Ditch
- (37) Embankment-earth
- (38) Embankment-rock, stone or concrete
- (39) Fence (wooden, wire, chain link, etc.)
- (40) Wall (stone, rock, metal, etc.)
- (41) Fire hydrant
- (42) Shrubbery
- (43) Tree
- (44) Other fixed object (specify):
- (45) Pavement surface irregularity (pothole, grooved, grates)
- (99) Unknown

AIRBAG VEHICLE IMPACT SUMMARY

VEHICLE ROLE

- (0) Non-collision
 (1) Striking Unit
 (2) Struck Unit
 (3) Both Striking and Struck
 (9) Unknown

MANNER OF LEAVING SCENE

- (1) Driven
 (2) Towed-due to damage
 (3) Towed - not for damage
 (4) Towed - details unknown
 (5) Abandoned
 (9) Unknown

NUMBER OF IMPACT EVENTS

- (8) 8 or more, (9) Unknown

- ROLLOVER (0) No Rollover
 (1) First Event
 (2) Subsequent Event
 (3) Yes, Unknown Event
 (9) Unknown

OVERRIDE/UNDERRIDE

- (1) No over/underride
 (1) Override - 1st CDC
 (3) - Other CDC
 (4) Underride - 1st CDC
 (6) - Other CDC
 (9) Unknown

AIRBAG VEHICLE DAMAGE

- CODES: (1) Yes, DAMAGED
 (2) No Damage
 (9) Unknown

LEFT FRONT FENDER DAMAGE

RIGHT FRONT FENDER DAMAGE

CENTER TOP OF GRILLE DAMAGE

FRONT BUMPER E.A. STATUS: Left

- (1) Normal Right
 (2) Extended
 (3) Partial Compression
 (4) Complete Compression
 (5) Not Applicable
 (9) Unknown

FIRST AIRBAG VEHICLE IMPACT:

CONFIGURATION

- (0) Struck Object or Pedestrian
 (1) Rear-End
 (2) Head-On
 (3) Rear-to-Rear
 (4) Angle
 (5) Sideswipe - Same Direction
 (6) Sideswipe-Opposite Direct.
 (7) NonCollision Fell from Veh
 (8) NonImpact Deployment
 (9) Unknown

CDC 02 - FREE - 2OBJECT CONTACTED: V2

PRIMARY/DEPLOYMENT IMPACT:

EVENT NUMBER

TOTAL DELTA-V

LONGITUDINAL DELTA-V

CONFIGURATION

- (0) Struck Object or Pedestrian
 (1) Rear-End
 (2) Head-On
 (3) Rear-to-Rear
 (4) Angle
 (5) Sideswipe - Same Direction
 (6) Sideswipe-Opposite Direct.
 (7) NonCollision Fell from Veh
 (8) NonImpact Deployment
 (9) Unknown

CDC 02 - FREE - 2OBJECT CONTACTED: V2

NOTES: The second impact was to the left rear door as V1 slid to FRP. V1 impacted and broke a 3.5" diameter wooden sign post

SYSTEM DAMAGE

AIRBAG SUPPLEMENT

AB-4

AIRBAG SYSTEM DAMAGE

CODES: (1) Yes, Damaged*
 (2) No, Intact
 (8) Not App. (Removed)
 (9) Unknown

AIRBAG MODULE

SENSORS: Left Front

Center Front

Right Front

Rear, Cowl

DIAGNOSTIC MODULE

WIRING

KNEE DIVERTER

INDICATION OF DISCONNECTED
 OR LOOSE ELECTRICAL
 CONNECTORS

222199182

CONDITION OF DEPLOYED BAG

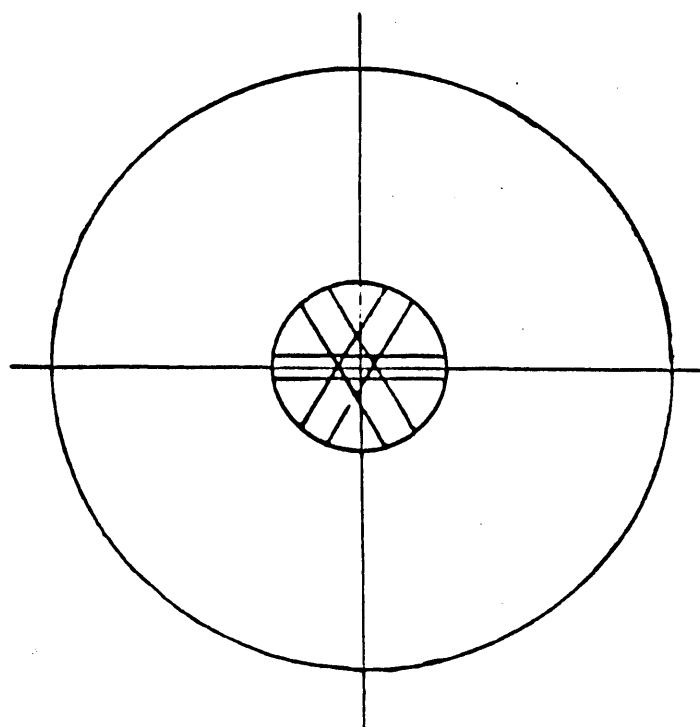
(1) Bag Intact
 (2) Split or Torn*
 (3) Cut by Object in Impact*
 (4) Cut after Accident*
 (5) Other (e.g., burned)*
 (8) N/A (not deployed)
 (9) Unknown

1

*DESCRIBE System and Bag Damage:

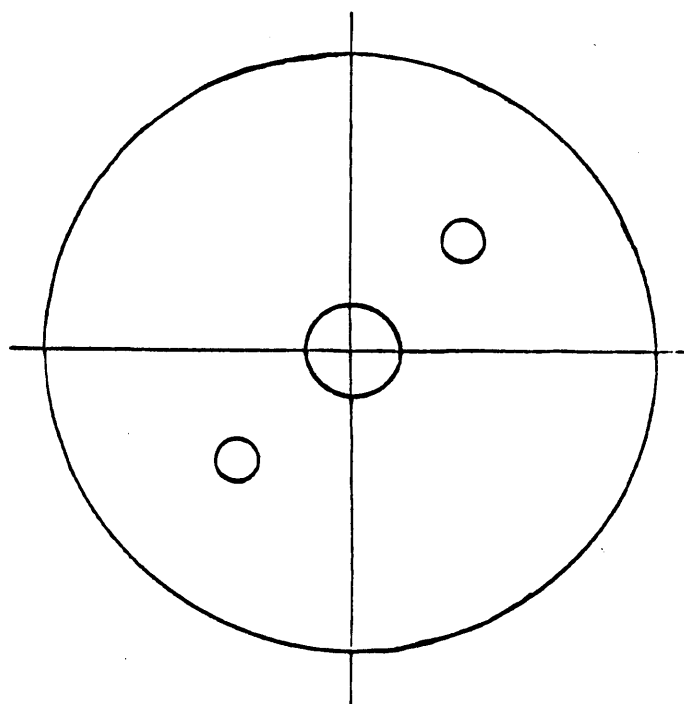
No damage noted to
airbag, but the right front
sensor was destroyed by direct
contact with V2. The wiring
harness was damaged as well.

NOTE DAMAGE AND CONTACT MARKS ON AIRBAG DIAGRAMS BELOW:



FRONT

TOP



BOTTOM

BACK

OCCUPANTS/DRIVER

AIRBAG SUPPLEMENT AB-5

OCCUPANTS of AIRBAG CAR

NUMBER OF OCCUPANTS IN VEHICLE

(8) 8 or more

NUMBER OF INJURED PERSONS

MAXIMUM AIS IN AIRBAG VEHICLE

(0) No Injury

(1-6) AIS Severity

(7) Injured, Unknown Severity

(9) Unknown

NOTES:

Driver VI was treated
and released from a
Trauma Hospital.

DRIVER AGE 35 SEX M

NUMBER OF DRIVER INJURIES

SOURCE OF BEST INJURY DATA

(0) Not Injured

(1) Autopsy w/wo med. records

(2) Hospital Medical Records

(3) Emergency Room only

(4) Private physician, Clinic

(5) Lay Coroner Report

(6) EMS Personnel

(7) Interviewee

(8) Police

(9) Unknown

MAXIMUM AIS BY BODY REGION

REGION

MAX AIS

CONTACT

Head/Neck/Face

1windshield

Chest

Abdomen

Leg/Hips

1Radio

Other (Arms)

1windshield

DRIVER MAXIMUM

1

EJECTION: Extent NA

Portal _____

DRIVER-PASSENGER

AIRBAG SUPPLEMENT AB-6

DRIVER BELT USAGE: (1) Used (2) Not Used (9) Unknown 9

Evidence: Driver states that shoulder harness didn't catch, but no evidence was found. Given his height, it is possible he was belted.

DRIVER POSTURE: Any Comments Recorded (1) Yes, (2) No 2

Describe driver's posture and position on seat including specific comments on head, torso, buttocks, legs and feet. Also note hand and arm position. Did driver brace before crash? Describe:

DRIVER FOREIGN OBJECTS: Comments Recorded (1) Yes, (2) No 2

Was driver wearing contact lenses or eyeglasses? Or holding any foreign object at the time of the impact (packages on lap, pipe, food, bottle, cigarette, etc.)? Did any lenses, objects, or jewelry play any role?:

DRIVER COMMENTS: Comments Recorded (1) Yes, (2) No 1

Was the driver aware that the vehicle was equipped with a supplemental restraint system? Did driver offer any comments on smoke, noise, etc.? Did the driver comment on the airbag as a restraint system? Describe:

He knew the vehicle was equipped, and he felt that the airbag kept him off of the steering rim.

PASSENGER-AIRBAG CONTACT (1) Yes, (2) No, (9) Unknown 2

Describe: _____



U.S. Department of Transportation
National Highway Traffic Safety
Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Case Number

AB00890

Vehicle Number

03

VEHICLE IDENTIFICATION

4. Vehicle Model Year

99

Code the last two digits of the model year
(99) Unknown

5. Vehicle Make (specify):

Hit and Run

Applicable codes are found in your
NASS CDS Data Collection, Coding, and
Editing Manual.
(99) Unknown

6. Vehicle Model (specify):

999

Applicable codes are found in your
NASS CDS Data Collection, Coding, and
Editing Manual.
(999) Unknown

7. Body Type

99

Note: Applicable codes are found on
the back of this page.

8. Vehicle Identification Number

9999999999999999

Left justify: Slash zeros and letter Z (0 and Z)
No VIN—Code all zeros
Unknown—Code all nine's

OFFICIAL RECORDS

9. Police Reported Vehicle Disposition

- (0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

0

10. Police Reported Travel Speed

99

Code to the nearest mph (NOTE: 00 means
less than 0.5 mph)
(97) 96.5 mph and above
(99) Unknown

11. Police Reported Alcohol or Drug Presence

7

- (0) Neither alcohol nor drugs present
(1) Yes (alcohol present)
(2) Yes (drugs present)
(3) Yes (alcohol and drugs present)
(4) Yes (alcohol or drugs present—specifics
unknown)
(7) Not reported
(8) No driver present
(9) Unknown

12. Alcohol Test Result for Driver

96

- Code actual value (decimal implied before
first digit—0.xx)
(95) Test refused
(96) None given
(97) AC test performed, results unknown
(98) No driver present
(99) Unknown

Source

ACCIDENT RELATED DATA

13. Speed Limit

55

- (00) No statutory limit
Code posted or statutory speed limit
(99) Unknown

14. Attempted Avoidance Maneuver

01

- (00) No impact
(01) No avoidance actions
(02) Braking (no lockup)
(03) Braking (lockup)
(04) Braking (lockup unknown)
(05) Releasing brakes
(06) Steering left
(07) Steering right
(08) Braking and steering left
(09) Braking and steering right
(10) Accelerating
(11) Accelerating and steering left
(12) Accelerating and steering right
(97) No driver present
(98) Other action (specify):

(99) Unknown

15. Accident Type

46

- Applicable codes may be found on the back
of page two of this field form
(00) No impact
Code the number of the diagram that
best describes the accident circumstance
(98) Other accident type (specify):

(99) Unknown

**** STOP HERE IF GV07 DOES NOT EQUAL 01-49 ****



US Department of Transportation
National Highway Traffic Safety
Administration

CRASHPC PROGRAM SUMMARY

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Identifying Title		<u>AB08890</u>		<u>02</u>			
Primary Sampling Unit		Case No. - Stratum		Accident Event Sequence No.		Date (month, day, year) of Run	

CRASHPC Vehicle Identification								
Vehicle 1	<u>1987</u>	<u>Cadillac</u>	<u>Fleetwood</u>	<u>02</u>				
Vehicle 2	<u>1990</u>	<u>Ford</u>	<u>LTD-Crown Victoria</u>	<u>01</u>				
	Year	Make	Model	NASS Veh. No.				

GENERAL INFORMATION							
VEHICLE 1				VEHICLE 2			
Size	<u>4</u>			Size	<u>4</u>		
Weight	<u>3762</u> + <u>278</u> + <u>0</u> = <u>3640</u>			Weight	<u>3821</u> + <u>176</u> + <u>50</u> = <u>4047</u>		
	Curb	Occupant(s)	Cargo		Curb	Occupant(s)	Cargo
CDC	<u>01 F D E W 3</u>			CDC	<u>02 F R E E 2</u>		
PDOF	<u>017</u>			PDOF	<u>045</u>		
Stiffness	<u>9</u>			Stiffness	<u>4</u>		

SCENE INFORMATION							
Rest and Impact Positions: [] No, Go To Damage Information [X] Yes							
VEHICLE 1				VEHICLE 2			
Rest Position				Rest Position			
X	<u>4.8</u>			X	<u>20.5</u>		
Y	<u>-21.7</u>			Y	<u>-24.8</u>		
PSI	<u>21.0</u>			PSI	<u>47.0</u>		
Impact Position				Impact Position			
X	<u>6.1</u>			X	<u>9.8</u>		
Y	<u>-10.0</u>			Y	<u>-28.0</u>		
PSI	<u>24.0</u>			PSI	<u>71.0</u>		
Slip Angle	<u>000</u>			Slip Angle	<u>000</u>		

VEHICLE MOTION							
Sustained Contact: [X] Yes [] No							
VEHICLE 1				VEHICLE 2			
Skidding				Skidding			
Skidding Stop Before Rest [X] No [] Yes				Skidding Stop Before Rest [X] No [] Yes			
End-of-Skidding Position				End-of-Skidding Position			
X	_____			X	_____		
Y	_____			Y	_____		
PSI	_____			PSI	_____		
Curved Path [X] No [] Yes				Curved Path [X] No [] Yes			
Point on Path				Point on Path			
X	_____			X	_____		
Y	_____			Y	_____		
Rotation Direction: [] None [X] CW [] CCW				Rotation Direction: [] None [X] CW [] CCW			
Rotation > 360° [X] No [] Yes				Rotation > 360° [X] No [] Yes			

National Accident Sampling System—Crashworthiness Data System: CrashPC Program Summary

FRICTION INFORMATION

Coefficient of Friction .75
 Rolling Resistance Option 1

Vehicle 1 Rolling Resistance

LF 0.90 RF 1.00
 LR 0.90 RR 0.90

Vehicle 2 Rolling Resistance

LF 0.90 RF 1.00
 LR 0.50 RR 0.50

TRAJECTORY INFORMATION

Trajectory Data: ☐ No ☒ Yes
 If No, Go To Damage Information

Vehicle 1 Steer Angles

LF -05 RF 000
 LR 000 RR 000

Vehicle 2 Steer Angles

LF -05 RF -10
 LR 000 RR 000

Terrain Boundary: ☐ No ☐ Yes

First Point

X 24.0 Y 000.0

Second Point

X 000.0 Y -63.0

Secondary Friction Coefficient .55

DAMAGE INFORMATION

VEHICLE 1

Damage Length 66

Crush Depths

C1 0
 C2 5.7
 C3 10.9
 C4 17.7
 C5 22.7
 C6 22.8

Damage Offset

± +10.6

VEHICLE 2

Damage Length 73

Crush Depths

C1 0
 C2 0
 C3 0.2
 C4 0.9
 C5 3.2
 C6 13.6

Damage Offset

± +32.2

IF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE NOT IN TRANSPORT, FILL IN THE INFORMATION BELOW.

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

SUMMARY OF CRASHPC RESULTS (USING SPINOUT)

1987 Cadillac Fleetwood vs 1990 Ford Crown Victoria (airbag)

IMPACT SPEED		TOTAL(MPH)	LONG.(MPH),	LAT.(MPH)	
(LINEAR MOMENTUM	VEH #1	30.4	30.4	.0	
AND SPINOUT)	VEH #2	21.7	21.7	.0	
SPEED CHANGE		TOTAL(MPH)	LONG.(MPH)	LAT.(MPH)	ANG.(DEG)
(DAMAGE)	VEH #1	20.3	-19.5	-5.8	16.5
	VEH #2	18.3	-12.8	-13.0	45.5
(LINEAR MOMENTUM	VEH #1	22.5	-21.8	-5.3	13.5
AND SPINOUT)	VEH #2	20.2	-14.9	-13.7	42.5

ENERGY DISSIPATED BY DAMAGE VEH#1: 69090.4 FT-LB VEH#2: 35887.5 FT-LB

SUMMARY OF CRASHPC RESULTS (USING TRAJECTORY)

1987 Cadillac Fleetwood vs 1990 Ford Crown Victoria (airbag)

IMPACT SPEED		TOTAL(MPH)	LONG.(MPH),	LAT.(MPH)	
(LINEAR MOMENTUM	VEH #1	31.7	31.7	.0	
AND TRAJECTORY)	VEH #2	21.5	21.5	.0	
SPEED CHANGE		TOTAL(MPH)	LONG.(MPH)	LAT.(MPH)	ANG.(DEG)
(DAMAGE)	VEH #1	20.3	-19.5	-5.8	16.5
	VEH #2	18.3	-12.8	-13.0	45.5
(LINEAR MOMENTUM	VEH #1	21.1	-20.6	-4.2	11.5
AND TRAJECTORY)	VEH #2	19.0	-14.4	-12.3	40.5

ENERGY DISSIPATED BY DAMAGE VEH#1: 69090.4 FT-LB VEH#2: 35887.5 FT-LB

SCENE INFORMATION

	VEHICLE # 1	VEHICLE # 2
IMPACT X-POSITION	6.10 FT.	9.80 FT.
IMPACT Y-POSITION	-10.00 FT.	-28.00 FT.
IMPACT HEADING ANGLE	280.00 DEG.	71.00 DEG.
REST X-POSITION	4.80 FT.	20.50 FT.
REST Y-POSITION	-21.70 FT.	-24.80 FT.
REST HEADING ANGLE	21.00 DEG.	47.00 DEG.
DIRECTION OF ROTATION	CW	CCW
AMOUNT OF ROTATION	<360	<360

COLLISION CONDITIONS

VEHICLE # 1		VEHICLE # 2	
XC10'	= 6.1 FT.	XC20'	= 9.8 FT.
YC10'	= -10.0 FT.	YC20'	= -28.0 FT.
PSI10	= 280.0 DEG.	PSI20	= 71.0 DEG.
PSI1D0	= .0 DEG/SEC	PSI2D0	= .0 DEG/SEC
BETA1	= .0 DEG.	BETA2	= .0 DEG.

SEPARATION CONDITIONS (USING SPINOUT)

VEHICLE # 1		VEHICLE #2	
US1	= 8.6 MPH	US2	= 6.8 MPH
VS1	= -5.3 MPH	VS2	= -13.7 MPH
PSISD1	= 146.5 DEG/SEC	PSISD2	= -41.0 DEG/SEC

RELATIVE VELOCITY (LINEAR MOMENTUM)	VEHICLE #1	VEHICLE #2
SPEED ALONG LINE THRU CG:	30.4 MPH	18.7 MPH
SPEED ORTHOG. TO CG LINE:	-.9 MPH	-11.0 MPH
CLOSING VELOCITY (LINEAR MOMENTUM) :	49.1 MPH	

TRAJECTORY SIMULATION RESULTS

VEH #1	NO. ITERATIONS =	2	BEST ITERATION =	2	ERROR =	.240
VEH #2	NO. ITERATIONS =	2	BEST ITERATION =	2	ERROR =	.213

SIMULATION TIME =	3.000 SEC	INTEGRATION STEP =	.050 SEC
-------------------	-----------	--------------------	----------

VEHICLE 1	REST POSITION	X(FT)	Y(FT)	PSI(DEG)
	PREDICTED	4.38	-19.06	379.44
	SCENE	4.80	-21.70	21.00

VEHICLE 2	REST POSITION	X(FT)	Y(FT)	PSI(DEG)
	PREDICTED	20.86	-24.97	42.81
	SCENE	20.50	-24.80	47.00

	RESIDUAL VELOCITY	LINEAR(MPH)	ANGULAR (DEG/SEC)
VEHICLE 1		.50	5.66
VEHICLE 2		.54	-2.31

SUMMARY OF DAMAGE DATA
VEHICLE # 1(* INDICATES DEFAULT VALUE)
VEHICLE # 2

TYPE-----	CATEGORY	4
STIFFNESS---	CATEGORY	9
WEIGHT-----		3640.0 LBS.
CDC-----		01FDEW3
L-----		66.0 IN.
C1-----		.0 IN.
C2-----		5.7 IN.
C3-----		10.9 IN.
C4-----		17.7 IN.
C5-----		22.7 IN.
C6-----		22.8 IN.
D-----		10.6
RHO-----		1.00 *
ANG-----		16.5 DEG.
D'-----		20.9 IN.

TYPE-----	CATEGORY	4
STIFFNESS---	CATEGORY	4
WEIGHT-----		4047.0 LBS.
CDC-----		02FREE2
L-----		73.0 IN.
C1-----		.0 IN.
C2-----		.0 IN.
C3-----		.2 IN.
C4-----		.9 IN.
C5-----		3.2 IN.
C6-----		13.6 IN.
D-----		32.2
RHO-----		1.00 *
ANG-----		45.5 DEG.
D'-----		58.4 IN.

DIMENSIONS AND INERTIAL PROPERTIES

A1	=	54.7	IN.	A2	=	54.7	IN.
B1	=	59.2	IN.	B2	=	59.2	IN.
TR1	=	61.8	IN.	TR2	=	61.8	IN.
I1	=	35406.2	LB-SEC**2-IN	I2	=	39365.1	LB-SEC**2-IN
M1	=	9.464	LB-SEC**2/IN	M2	=	10.523	LB-SEC**2/IN
XF1	=	98.8	IN.	XF2	=	98.8	IN.
XR1	=	-114.0	IN.	XR2	=	-114.0	IN.
YS1	=	38.5	IN.	YS2	=	38.5	IN.

ROLLING RESISTANCE

VEHICLE # 1

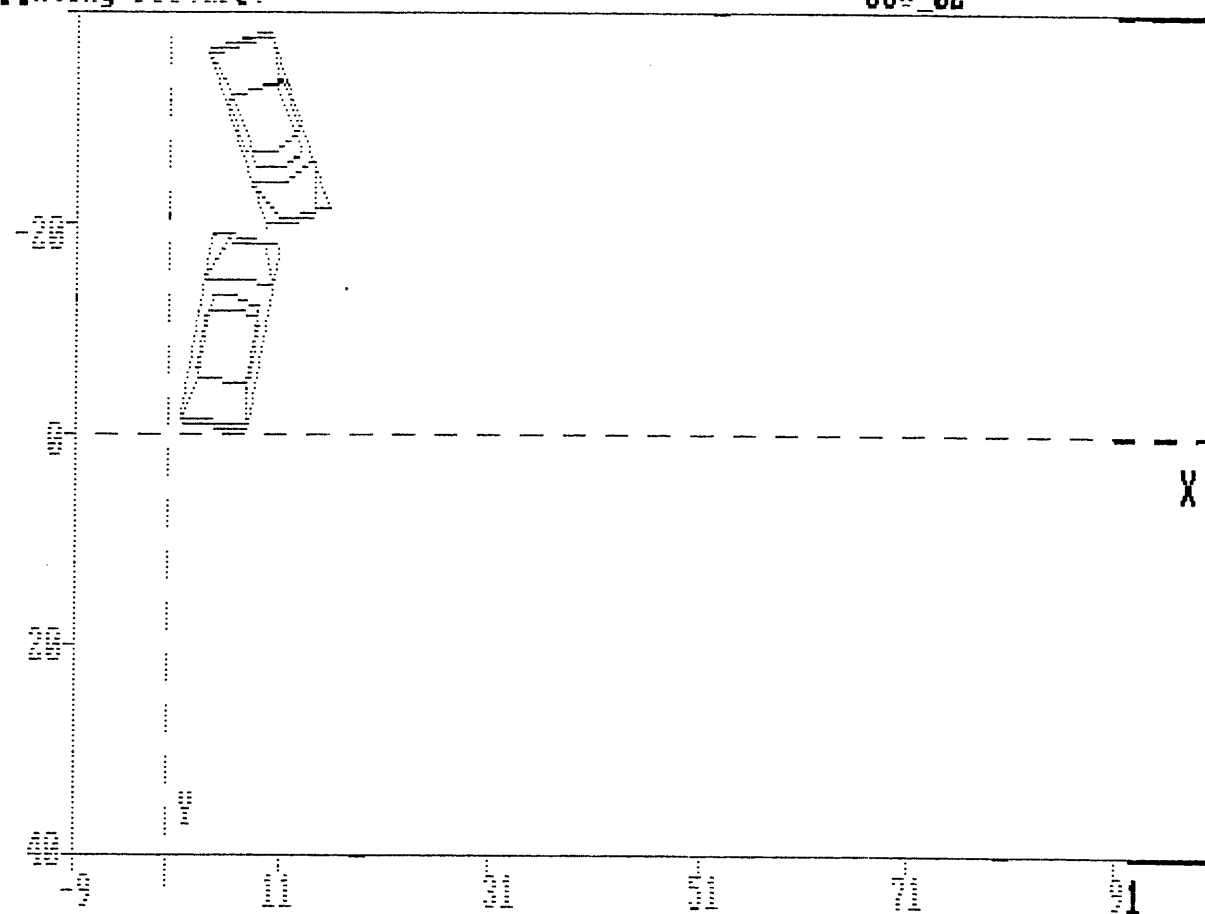
LF-----	.90
RF-----	1.00
LR-----	.90
RR-----	.90
MU-----	.75

VEHICLE # 2

LF-----	.90
RF-----	1.00
LR-----	.50
RR-----	.50

Printing Picture:

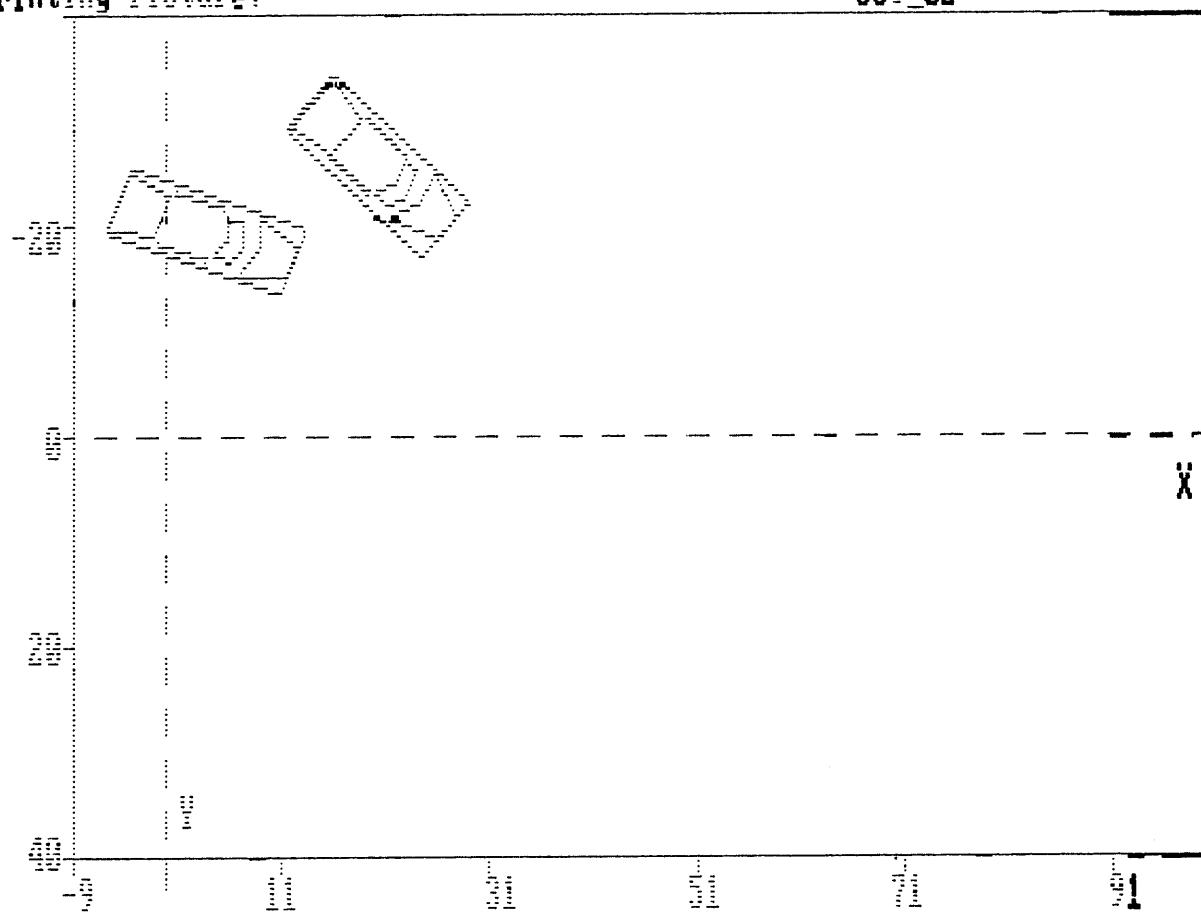
583 02



VEHICLE TRAJECTORY: POSITION 1

Printing Picture:

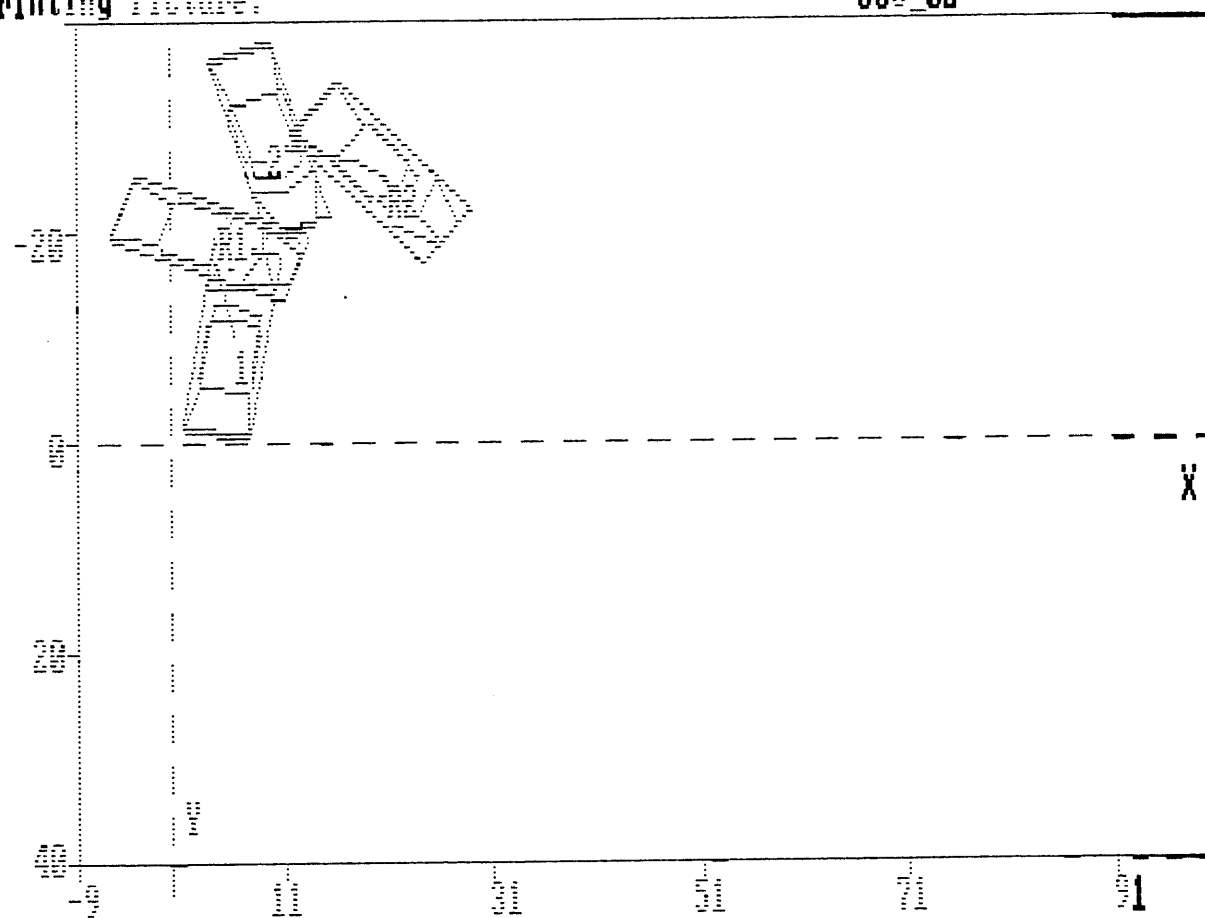
583 02



VEHICLE TRAJECTORY: POSITION 5

Printing Picture:

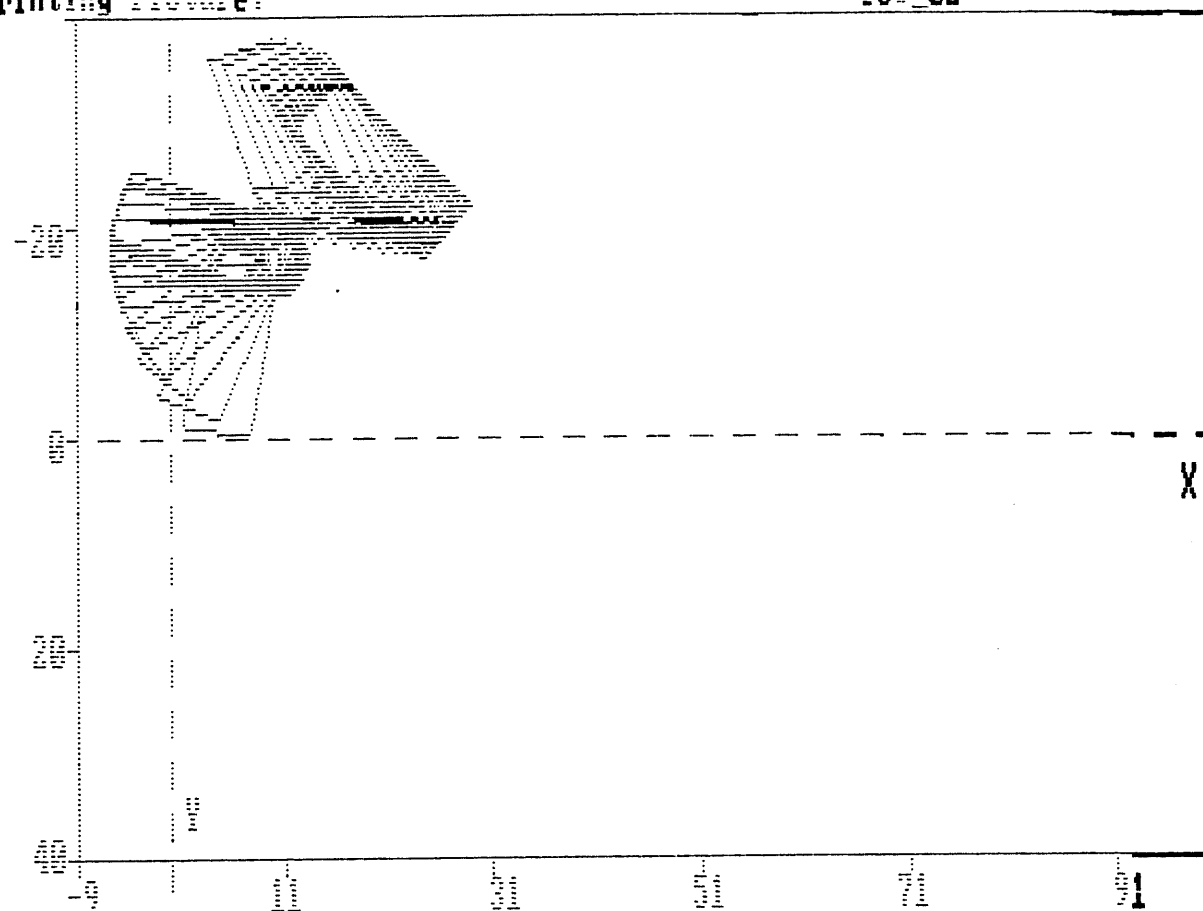
582 02



TRAJECTORY PATH

Printing Picture:

583 02



VEHICLE TRAJECTORY: UNINTERRUPTED

MOTOR VEHICLE ACCIDENT REPORT

2. FORM

1 OF 1

A-1. REPORT NO.

3. LOCAL AREA CASE NO.

4. ACCIDENT DATE
MO DAY YR5. TIME
(MILITARY)6. DAY OF
WEEK7. REPORT TYPE
1 - TRAFFIC ACCIDENT
2 - NON TRAFFIC ACCIDENT

8. COUNTY

9. TIME NOTIFIED
(MILITARY)10. TIME ARRIVED
(MILITARY)

11. ACCIDENT SEVERITY

4 1 - Damage only
2 - Possible Injury
3 - Non-Incapacitating
4 - Incapacitating
5 - Fatal

12. FIRST HARMFUL EVENT

011 01 - Other Motor Veh in transport
02 - Parked Motor Vehicle
03 - Motor Veh on other roadway
04 - Pedestrian
05 - Pedalcycle
06 - Other Convey
07 - Animal
08 - Rwy Train
09 - Fixed Object
10 - Other Object
11 - Overturned
12 - Other Non-Collision

13. SUBSEQUENT EVENTS

14. FIXED OBJECT STRUCK

019 01 - Bridge/Overpass
02 - Building
03 - Culvert, Ditch
04 - Curb, Wall
05 - Guardrail/Barrier
06 - Embankment
07 - Fence
08 - Light support pole
09 - Sign support pole
10 - Other pole
11 - Tree, Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
14 - Other

15. COLLISION TYPE

01 1 - Non-Intersection
2 - Intersection
3 - Intersection Related
4 - Driveway-Access

17. KIND OF LOCALITY

5 1 - Manufacturing or Industrial
2 - Shopping or Business
3 - Residential
4 - School or Recreational
5 - Open Country

B-1. DAMAGE TO PROPERTY OTHER THAN VEHICLE OBJECT

Pole w/reflective sign

3. DAMAGE SEVERITY

4 1 - No Damage 3 - Moderate
2 - Superficial 4 - Destroyed

C-1. ACCIDENT OCCURRED ON - ROAD NAME

3. DISTANCE

370 1 - Feet
2 - Miles

6. REFERENCED ROAD NAME

7. CITY ACCIDENT OCCURRED IN - OR INDICATE RURAL

8. MUNICI-PAL CODE

2. TYPE ROUTE NO. SUFFIX

4 1 - North 4 - West
2 - South 5 - N/A
3 - East

6. TYPE ROUTE NO. SUFFIX

8. LOG MILE REFERENCE ON C-1. AT C-5.

10. RAMP MOVEMENT

0 1 - N/A 2 - N/A 3 - E → N 4 - E → S 5 - E → W 6 - E → Other
1 - N → W 2 - N → S 3 - N → E 4 - N → Other
5 - W → N 6 - W → S 7 - W → E 8 - W → Other

D. MOVEMENT OF VEHICLES

1. 0,1 01 - Moving Constant Speed
02 - Accelerating
03 - Slowing or Stopping
04 - Starting from Traffic Lane
05 - Starting from Parked Position
06 - Stopped in Traffic Lane
07 - Changing Lanes
08 - Passing
09 - Parking10 - Parked
11 - Backing
12 - Making Left Turn
13 - Making Right Turn
14 - Making Right Turn on Red
15 - Making U Turn
16 - Bridding
17 - Driverless Moving Vehicle
18 - Other/Unknown

DIRECTION PRIOR TO TURNING

5 1 - N
2 - S
3 - E
4 - W
5 - N/A

E-1. ACCIDENT OCCURRED IN.

111 01 - Lane 1
02 - Lane 2
03 - Lane 3
04 - Lane 4
05 - Merge/Transition Lane
06 - Acceleration Lane
07 - Deceleration Lane
08 - Left Turn Lane
09 - Right Turn Lane
10 - Left Shoulder
11 - Right Shoulder
12 - Center Median
13 - Left Roadside
14 - Right Roadside
15 - Outside Trafficway
16 - Median Crossover
17 - Gore
18 - Parking Lot
19 - Other

F. TRAFFIC CONTROLS

FUNCTIONING

0,5 1 - NO
2 - YES

NOT FUNCTIONING

01 - Police Officer
02 - R.R. Watchman, Gate, Etc.
03 - Stop & Go Signal
04 - Flashing Signal
05 - Lane Markings06 - Channelization Painted
07 - Channelization Physical
08 - Construction/Maintenance Controls
09 - Warning Sign
10 - Stop Sign11 - Yield Sign
12 - Center Line
13 - Edge Line
14 - Other Traf Control
15 - No Control Present

G-1. MV INIT NO.

2. HIT & RUN

1 - NO
2 - YES

3. DRIVER NAME - FIRST, MIDDLE & LAST

4. ADDRESS - NO., STREET, CITY, STATE & ZIP

5. PHONE NO.

6. DATE OF BIRTH
MO DAY YR

7. SEX

8. DRIVER LICENSE NO.

9. CLASS

10. RESTRICTIONS

11. STATE

12. YEARS DRV EXP.

13. DRIVER EDUCATION

14. INJ SEV

15. SAFETY EQPT.

16. EJT

1 2 3
4 5 6
7 817. OCC NO.
18. ST. POS.

19. AGE

20. SEX

21. INJ SEVERITY

22. SFTY EQPT.

23. EJT

24. OCCUPANT NAME & ADDRESS

25. OWNER - NAME & ADDRESS

MAKE

27. MODEL

28. YR

29. VEHICLE ID NO.

30. PLATE NO.

31. STATE

32. YR

33. VEH TYPE

35. DAMAGE SEVERITY

FORD

LTD Crown Vic

A90

FACPYG2LX15

VEHICLE

17 E

1

VEHICLE REMOVED BY

37. VEHICLE REMOVED TO

34. TOWED TYPE

36. REMOVAL AUTHORITY

1. MV WT NO.

2. HIT & RUN

1 - NO
2 - YES

3. DRIVER NAME - FIRST, MIDDLE & LAST

4. ADDRESS - NO., STREET, CITY, STATE & ZIP

5. PHONE NO.

6. DATE OF BIRTH
MO DAY YR

7. SEX

8. DRIVER LICENSE NO.

9. CLASS

10. RESTRICTIONS

11. STATE

12. YEARS DRV EXP.

13. DRIVER EDUCATION

14. INJ SEV

15. SAFETY EQPT.

16. EJT

1 2 3
4 5 6
7 817. OCC NO.
18. ST. POS.

19. AGE

20. SEX

21. INJ SEVERITY

22. SFTY EQPT.

23. EJT

24. OCCUPANT NAME & ADDRESS

OWNER - NAME & ADDRESS

26. MAKE

27. MODEL

28. YR

29. VEHICLE ID NO.

30. PLATE NO.

31. STATE

32. YR

33. VEH TYPE

35. DAMAGE SEVERITY

Fleetwood

A87

R66CB5Y854429

VEHICLE

L02 E

1

VEHICLE REMOVED BY

37. VEHICLE REMOVED TO

34. TOWED TYPE

36. REMOVAL AUTHORITY

FRONT REAR	H- POINT OF IMPACT VEH 1 1. <input type="checkbox"/> 0, <input type="checkbox"/> 2 VEH 2 2. <input type="checkbox"/> 0, <input type="checkbox"/> 2 10 - Undercarriage 14 - Other 15 - None/Unknown	AREAS DAMAGED VEH 1 3. <input type="checkbox"/> 0, <input type="checkbox"/> 1 <input type="checkbox"/> 0, <input type="checkbox"/> 2 <input type="checkbox"/> 0, <input type="checkbox"/> 4 VEH 2 4. <input type="checkbox"/> 0, <input type="checkbox"/> 1 <input type="checkbox"/> 0, <input type="checkbox"/> 2 <input type="checkbox"/> 0, <input type="checkbox"/> 4 11 - Overturned 12 - Totaled 13 - Fire Damage AREA DAMAGE ONLY	VEHICLE CONDITION VEH 1 5. <input type="checkbox"/> 0, <input type="checkbox"/> 1 VEH 2 6. <input type="checkbox"/> 0, <input type="checkbox"/> 1 01 - No Apparent Defects 02 - Defective Brakes 03 - Defective Headlights 04 - Defective Rear Lights 05 - Defective Steering 06 - Puncture/Blowout 07 - Tire - Excess Wear/Smooth 08 - Defective/Altered Exhaust 09 - Defective/Altered Suspension 10 - Motorcycle Lights on - Daylight 11 - Other 12 - Unknown	DRIVER CONDITION VEH 1 7. <input type="checkbox"/> 1 VEH 2 8. <input type="checkbox"/> 1 1 - Apparently Normal 2 - Had been Drinking 3 - Using Drugs 4 - Physical Defects/Handicap 5 - Ill 6 - Fatigued 7 - Apparently Asleep 8 - Blinded by Glare 9 - Condition Unknown
	1-1 ILLUMINATION 1. <input type="checkbox"/> 1 2 - Dawn 3 - Dusk 4 - Dark (Street Lts on) 5 - Dark (Street Lts off) 6 - Dark (No Lts) 7 - Unknown	2 WEATHER 1. <input type="checkbox"/> 1 1 - Clear 2 - Cloudy 3 - Foggy 4 - Raining 5 - Snowing 6 - Severe Wind 7 - Other 8 - Unknown	3 SURFACE TYPE 3. <input type="checkbox"/> 3 1 - Concrete 2 - Tar & Chip 3 - Asphalt/Blacktop 4 - Gravel 5 - Brick 6 - Dirt 7 - Other	4. ROADWAY SURFACE 2. <input type="checkbox"/> 2 1 - Wet 2 - Dry 3 - Snow 4 - Ice 5 - Mud 6 - Other 7 - Unknown

J-1. PED NO <input type="checkbox"/>	2. PED INDICATOR <input type="checkbox"/> 1 - Pedestrian <input type="checkbox"/> 2 - Pedalcyclist	3. PED NAME 	4. PED. BIRTHDATE
5. PED INJ SEV <input type="checkbox"/>	6. PED SEX 	7. ADDRESS-NO., STREET, CITY, STATE & ZIP 	8. PHONE NO.

9. PED MANEUVER <input type="checkbox"/> 1 01 - Crossing/Entering Roadway at Intersection 02 - Crossing/Entering Roadway Not at Intersection 03 - Walking/Riding on Road w/Traffic 04 - Walking/Riding on Road against Traffic	05 - Playing 06 - Standing 07 - Getting on/off Veh 08 - Pushing/Working On Veh. 09 - Other Working	10 - Hitch-Hiking 11 - Approaching/ Leaving School Bus 12 - Other 13 - Unknown	10. PED CONDITION <input type="checkbox"/> 1 1 - Apparently Normal 2 - Had been Drink'g 3 - Using Drugs	11. PED VISIBILITY <input type="checkbox"/> 1 1 - Light Clothing 2 - Dark Clothing 3 - Mixed Clothing 4 - Retro-Reflective/Material 5 - Head Light 6 - Rear Light Reflector 7 - Hd Lt & Rear Lt/Reflector
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PEDESTRIAN TRAFFIC CONTROLS FUNCTIONING <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	NOT FUNCTIONING <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	1 - Walk/Don't Walk Signal 2 - Push Button Control 3 - Crosswalk-Marked 4 - Uniformed Crossing Guard 5 - Student Crossing Guard 6 - No Control Present	14. PED LOCATION AT TIME OF ACCIDENT <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 1 - Shoulder 2 - Curb 3 - Sidewalk 4 - Outside Rt of Way 5 - On Roadway at Crosswalk 6 - On Roadway not at Crosswalk 7 - School Bus Zone 8 - Highway 9 - Unknown
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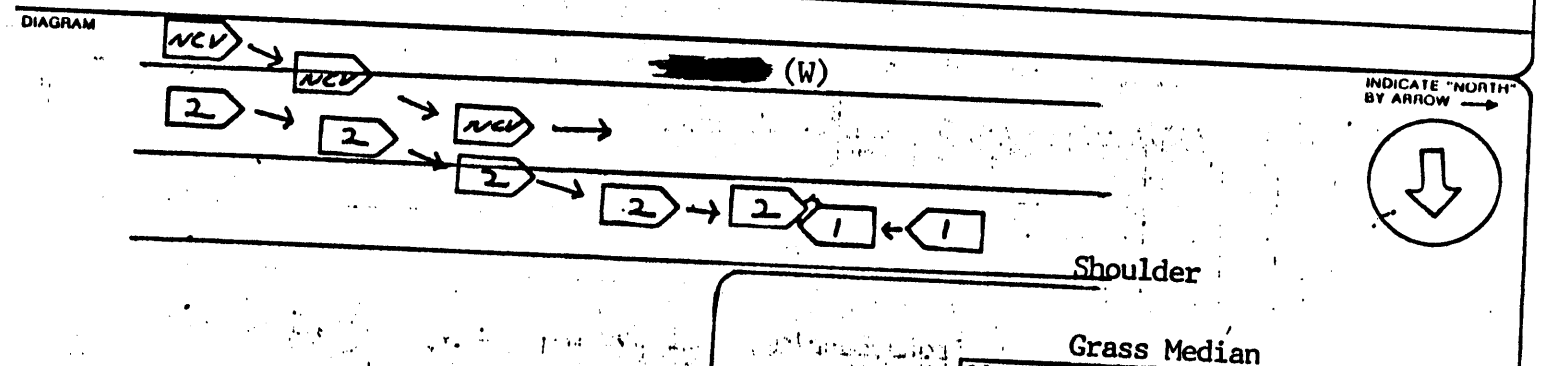
15. BICYCLE - MAKE, WHEEL SIZE & OTHER DESCRIPTION 	K-1 FIRST AID ADMINISTERED BY <input type="checkbox"/> 1 <input type="checkbox"/> 2 1 - Policeman 2 - Fireman 3 - Ambulance Personnel 4 - Helicopter Personnel 5 - Refused 6 - Other 7 - None Admin 8 - Unknown	2. EMS REPORT NO. 	3. EMS REPORT NO. 	4. INJURED TAKEN BY F.D. / Helicopter
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L-1 UNIT 1	2. CITATION NO. 	3. CHARGE SEC SUB SEC PAR	2. CITATION NO. 	3. CHARGE SEC SUB SEC PAR	4. CITATION NO. 	5. CHARGE SEC SUB SEC PAR
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1-1 PHOTO TAKEN <input type="checkbox"/> 1 <input type="checkbox"/> 2 1 - YES 2 - NO	2. INVEST'D AT SCENE <input type="checkbox"/> 1 <input type="checkbox"/> 2 1 - YES 2 - NO	3. INVEST'N COMPLETE <input type="checkbox"/> 1 <input type="checkbox"/> 2 1 - YES 2 - NO	N - ALCOHOL TEST 1. VEH ONE <input type="checkbox"/> 6 2. VEH TWO <input type="checkbox"/> 6 3. PED <input type="checkbox"/> 6 1 - Breathalyzer 2 - Blood 3 - Urine 4 - Post Mortem 5 - Refused 6 - None Offered	0 - TEST RESULTS 1. VEH ONE 2. VEH TWO 3. PED.
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1. WITNESS NAME 1 	2. ADDRESS 	3. PHONE NO.
1. WITNESS NAME 2 	2. ADDRESS 	3. PHONE NO.

Q-1 DESCRIPTION
 Veh-1 was east bound on the right shoulder of west bound [redacted], attempting to reach a wooded area in which a wanted subject had run into. Veh-2 was west bound on [redacted], traveling in the right lane when an unknown vehicle started to drift into the right lane from the left lane, causing veh-2 to apply it's brakes and swerve onto the right shoulder. Vehicles 1 and 2 then collided. Veh-1 ([redacted] Police vehicle) had emergency lights and siren activated.



S-1 CALISE ACCIDENT 1-1 PRIMARY 2-SECONDARY 1 17	CONTRIBUTING CIRCUMSTANCE 3. VEH ONE 17 4. VEH TWO 95	T-1 INVESTIGATING OFFICER 	2. OFFICER ID NO. 	3. AGENCY 	4. INSTALLATION
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SLIDE INDEX
Case No. AB00890

PHOTO NO.	VEHICLE NO.	DIRECTION OF PICTURE	SUBJECT MATTER
01-02	01	east	Direction of travel
03	01 & 02	east	Impact point and V2 FRP
04	01	north	After-impact trajectory
05-07	01	west	Approach direction
08-12	02	west	Direction of travel
13	01 & 02	west	Impact point and V2 FRP
14-15	02	east	Approach direction
16-19	01	ccw	Exterior
20	01	left side	Minor damage from wooden sign post
21-25	01	ccw	Exterior
26-32	01	---	Interior showing driver contact to windshield and Police radio.
33-36	02	ccw	Exterior
37	02	left side	Damage from contact with V3
38-40	02	ccw	Exterior
41-48	02	---	Interior showing driver contact to steering rim and left instrument panel. Passenger contact to right instrument panel.



DC 9008 #1



DC9008 #2



DC 9008 #3



DC 9008 #4



DC 9008 #5



DC 9008 #6



DC9008 #7



DC9008 #8



DC9008 #9



DC 9008 #10



DC9008 #11



DC 9008 #12



DC9008 #13



DC9008 #14



DC9008 #15



DC9008 #16
Best Available



DC 9008 #17
Best Available



DC9008 #18
Best Available



DC 9008 #19
Best Available



DC9008 #20



DC 9008 #21
Best Available



DC9008 #22
Best Available



DC 9008 #23
Best Available



DC 9008 #24
Best Available



DC9008 #25
Best Available



DC 9008 #26
Best Available



DC9008 #27
Best Available



DC9008 #28
Best Available



DC 9008 #29
Best Available



DC 9008 #30
Best Available



DC9008 #31



DC 9008 #32



DC 9008 #33
Best Available



DC 9008 #34
Best Available



DC9008 #35
Best Available



DC 9008 #36
Best Available



DC 9008 #37
Best Available



DC9008 #38
Best Available



DC 9008 #39
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DC9008 #40
Best Available



DC 9008 #41
Best Available



DC 9008 #42
Best Available



DC 9008 #43
Best Available



DC 9008 #44
Best Available



DC9008 #45
Best Available



DC9008 #46
Best Available



DC 9008 #47
Best Available



DC9008 #48

Best Available